

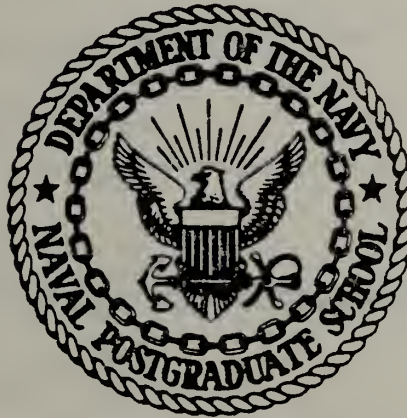
AN ANALYSIS OF THE COST IMPLICATIONS OF
EMPLOYING SUCCESS PREDICTIVE CRITERIA IN
THE PROCESS OF SELECTING NAVY RECRUITERS

Mary Anderson Shupack

Thesis
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NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

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by

Mary Anderson Shupack

June 1979

Thesis Advisor:

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Success Predictive Criteria in the Process
of Selecting Navy Recruiters

by

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Lieutenant Commander, United States Navy
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Submitted in partial fulfillment of the
requirements for the degree of

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I. THE PROBLEM

The ability to make accurate personnel decisions has become increasingly important in the modern Navy. The imposition of severe budget constraints, the creation of a volunteer service, and the introduction of new systems with their attendant, escalating hardware costs and capital intensiveness have all contributed to the need to maximize the efficient utilization of manpower.

Unfortunately, the Navy is, at present, having great difficulty even enlisting enough new recruits each year to meet the basic manpower needs of this new, highly technical Navy. In the most recently completed quarter, January through March 1978, the Navy Recruiting Command achieved only 85 percent of its assigned goal and the prospects for the current quarter, which ends June 30, are no more encouraging with only 83 percent of April and May's goals enlisted.

The Navy's recruiting problems are aggravated when the wrong individuals are sent to recruiting assignments. The costs to the Navy in terms of both monetary and human resources are considerable. Not only does the Recruiting Command suffer because of loss of productivity when the wrong individuals are detailed to recruiting billets but the Navy, as a whole, suffers the loss of these petty officers' talents in positions throughout the operating forces.

The process of selecting, detailing, training and transferring personnel to recruiting assignments involves expenditures of considerable time and money and when personnel turnovers occur in recruiting billets before completion of the scheduled thirty-six month tour, costs increase significantly. The level of capability of the Recruiting Command to meet the Navy's manpower needs is critically dependent on the retention rate of personnel detailed to recruiting positions. The greater the annual turnover rate from these positions, the greater must be the annual flow of new recruiters in order to maintain a given recruiting strength level. However, new recruiters have to be selected, detailed, oriented, trained, deployed to recruiting stations, and then trained some more on-the-job before they can function as producing recruiters. In addition, recruiting turnovers, the individuals who are unable to perform effectively as recruiters, are often abruptly transferred to other Navy assignments or, possibly, separated from the service earlier than anticipated. Since recruiting is a "voluntary" duty in the Navy and selection has, during the AVF, been based on good performance as well as the recruiting selection factors, such as a Sales Aptitude Test, the average recruiter selectee has been a good petty officer who has enjoyed "success" in his previous Navy assignments. The fact that the expected continued "success" does not occur on recruiting duty often jolts the non-productive recruiter's self-confidence severely and his attitude and motivation for the Navy, as a whole,

often suffer along with the loss of productivity to the Navy Recruiting Command. This loss of self-confidence and motivation toward the Navy often makes the individual of questionable value in follow-on assignments and may even lead, especially in the case of persons who are close to Fleet Reserve eligibility, to the individual getting out sooner than they or the Navy had really planned. It is not uncommon for senior petty officers who have failed on recruiting duty to report to their next duty station, immediately submit their papers for Fleet Reserve and spend the rest of their time on active duty down-grading the Recruiting Command and the Navy while marking time until they can "get out."

The turmoil and hardship endured by the families of unsuccessful recruiters, who are transferred early from their recruiting assignments, is another cost of assigning the wrong people to the wrong jobs. These families are often required to make two permanent change of station moves in a one or two year period of time when they expected to be in a certain area for at least the "guaranteed" thirty-six month normal recruiting tour.

All of the aforementioned eventualities absorb resources and add to the cost of obtaining a given level of recruiting capability. In these days of personnel shortages and constrained resources, the Navy can ill-afford such ineffective utilization of valuable human resources so better selection techniques for Navy recruiters should be developed to help

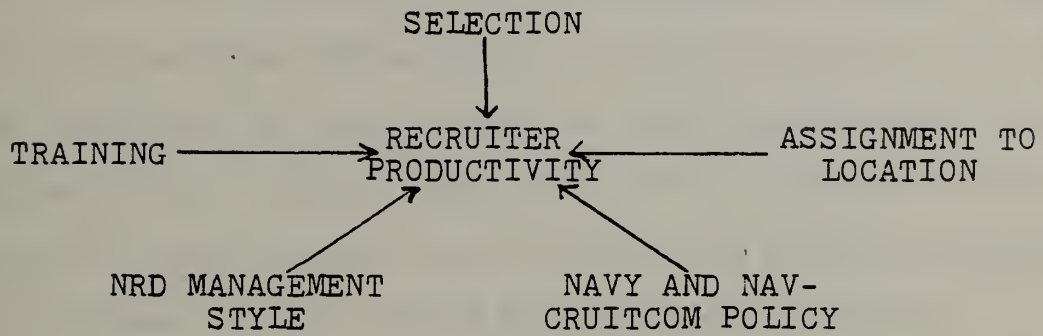
reduce the level of waste both in terms of money spent and human resources misapplied. This research will attempt, by using historical data, to identify characteristics of successful recruiters which can be applied during the selection of new recruiters in order to reduce the probability that personnel not suited for recruiting will be assigned to the job and thus minimize recruiter nonproductivity, turnover and the resultant costs.

It should be noted, at the outset, that improved recruiter selection will not provide a cure-all for the problem of recruiter turnover. Because of the dynamics of the recruiting situation other factors such as, location to which the recruiter is assigned, management style of the Navy Recruiting District leadership, recruiter training programs and Navy and Recruiting Command policies, all impact on the ability of the individual field recruiter to perform effectively.

Improved selection of Navy recruiters based on criteria developed in this research, while not a panacea, will, nevertheless, help minimize the uncertainties which lead to the current high turnover in the Navy enlisted recruiting force. Therefore, the focus of this research will be on only one of the factors which impact on recruiter productivity, i.e., selection.

FIGURE 1

MODEL OF RECRUITER PRODUCTIVITY



II. BACKGROUND

A. IMPACT OF THE ALL VOLUNTEER FORCE (AVF) ON NAVY RECRUITING

The Navy is currently facing and will, in the next decade, face an increasingly severe manpower problem. Population projections indicate that by 1985 there will not be enough young men in this country to meet the needs of the armed services. Indeed, there will not be enough young men to meet the needs of even the civilian job market, according to a spokesman for the United States Bureau of Labor Statistics.

"The big drop in the birthrate which began in the United States in 1962 has continued and will hit the job scene by the mid-1980's. 'We're going to have a people shortage crunch,' says Bienstock.¹ 'Even with the wonders of science, there's still no way to produce a 21-year-old job applicant in less than 21 years.'"²

On March 27, 1969 following the turbulent years of anti-Vietnam protests, then-President Nixon appointed an All Volunteer Forces Advisory Commission under the Chairmanship of the Honorable Thomas S. Gates, Jr., former Secretary of Defense. The purpose of the Commission was to develop a comprehensive plan for eliminating conscription and moving toward an all volunteer armed force. The Commission was to study a broad range of possibilities for increasing the supply of volunteers for service, including increased pay,

¹Notes are all contained on the list of notes at the end of this thesis.

benefits, recruitment incentives and other practical measures for making military careers more attractive to young men.³

The AVF, it was argued, would be no problem for the Navy since the Navy was already a volunteer service. Traditionally, the Navy's ranks had been filled by volunteers and historically the draft had been used to obtain personnel for the Navy only a few times.

"Since World War II, the Navy had relied upon volunteer enlistments to maintain its force structure. However, it is recognized that many men were motivated to enlist by the prospect of being drafted into the Army."⁴

The All Volunteer Force drastically changed the recruiting environment and hence the type of personnel needed to man the Navy's recruiting force, so the Navy had to find a way to select, train and support a quality recruiting force in the new, highly competitive AVF environment.

"The problems of Navy recruiting sharply increased on 1 July 1973 with the coming into reality of an all volunteer force (AVF). Many studies prior to that time had attempted to differentiate the 'true' volunteer from the draft-motivated volunteers in order to obtain some insight into the nature and severity of recruiting problems that would result from the AVF. These studies tended to show that the quality of new acquisitions would be lower and that serious shortfalls would occur in the number of recruits (Allen, Simon, and Watson, 1973; Bennett, Haber, and Kinn, 1972; Drexler, 1973)."⁵

To accomplish the task of fielding a more highly qualified recruiting force in the face of the AVF challenge, the Navy initiated many active recruiting improvement measures. A separate field command was created in April 1971 to manage the recruiting effort for the Navy. This innovation was meant to increase the visibility and prestige of the recruiting function in the Navy and enable it to attract more

top quality people and to obtain a greater share of the Navy's budget. Recruiter strength levels were increased from 2339 in July 1971 to 3051 in June 1972.⁶

"Funds for recruiting were greatly increased, personnel authorizations for recruiters in the field were expanded and a strong effort was made to improve the quality of leadership in the Navy Recruiting Command (NAVCRUITCOM). These primary moves led to a profusion of other programs, chief among which were large-scale advertising and marketing efforts and widespread support of analyses and studies to provide guidance for the recruiting effort. Because of the felt urgency of the situation, this proliferation of programs tended to be opportunistic and, often, by necessity, based on faith. It was felt that the cost of opportunity loss--missing a good bet--would be much greater than the cost of programs that might not pay off."⁷

Unfortunately, despite the extensive efforts of the Navy Recruiting Command, the service has consistently failed to meet its manpower goals since the establishment of the AVF and predictions of future recruiting prospects are even less encouraging than past performance. As the pool of available young men continues to decrease steadily, the Navy finds itself increasingly in competition with the other services, colleges and universities and civilian employers for quality young people.

"Of the most immediate notice is the absence of the military draft, which, with the exception of a relatively brief pre-Korea gap, has been with us since World War II, as a factor conditioning individual behavior of American youth and military manpower policy. With the 'zero-draft' now in effect, there still remains a need for the Navy to establish its own special appeal among eligible populations as a job and career opportunity, while operating within the range of legal and financial constraints applicable to all of the services. But no longer can the Navy rely heavily upon men who would rather 'take a chance with the Navy' than be drafted into the ground forces. Furthermore, without leverage provided by the draft, all of the military services must now meet the same conditions of competition in the labor market as civilian employers do"⁸

B. NAVY RECRUITING COMMAND OVERVIEW

The Navy organization tasked with meeting the All Volunteer Force challenge is the Navy Recruiting Command (NAVCRUITCOM). The mission of this organization is:

"To recruit men and women for enlisted, officer candidate, and officer status in the regular and reserve components of the Navy. Prepare for the Secretary of the Navy the documents required for original appointment to warrant and commissioned grade."⁹

In order to carry out this mission, NAVCRUITCOM is divided into six recruiting areas, corresponding to six major geographic regions in the continental United States. These are, Area One (Northeast), Area Three (Southeast), Area Four (Upper Midwest), Area Five (Central), Area Seven (Southwest), and Area Eight (Far West). Additionally, overseas recruiting responsibilities are assigned to the Areas as follows: Area One, European recruiting; Area Eight, recruiting in Alaska, Hawaii and the Far East.

The manner in which the mission is accomplished within the Navy Recruiting Command was described by Arima as follows:

"Headquarters, Navy Recruiting Command, receives its goals and resources from the Chief of Naval Personnel, and it distributes them to the Navy Recruiting Areas on some equitable basis, which turns out to be a population measure of the Area. Each Navy Recruiting Area, in turn, allocates its resources and goals in a similar manner, and the process is repeated at the Navy Recruiting District level. Thus, each Navy Recruiting Station receives resources and goals proportionate to its population. Then the output of each Navy Recruiting Station is compared with its tasking, and the comparison process is repeated up the hierarchy. On the basis of this feedback, resources and goals are adjusted cybernetically until every component in the system can make its goals with

approximately the same effort. This ensures a very close correlation between resources and output, especially when outputs equal goals or are a constant proportion of goals throughout the system."10

As can be seen by the diagram, shown in Figure 1, the canvasser recruiter is the lowest level at which accessions are accumulated within the Navy Recruiting Command system and it is at the level of the canvasser recruiter that the analysis in this research will be focused, as it is at this, the working level, that the actual mission of the Recruiting Command is accomplished.

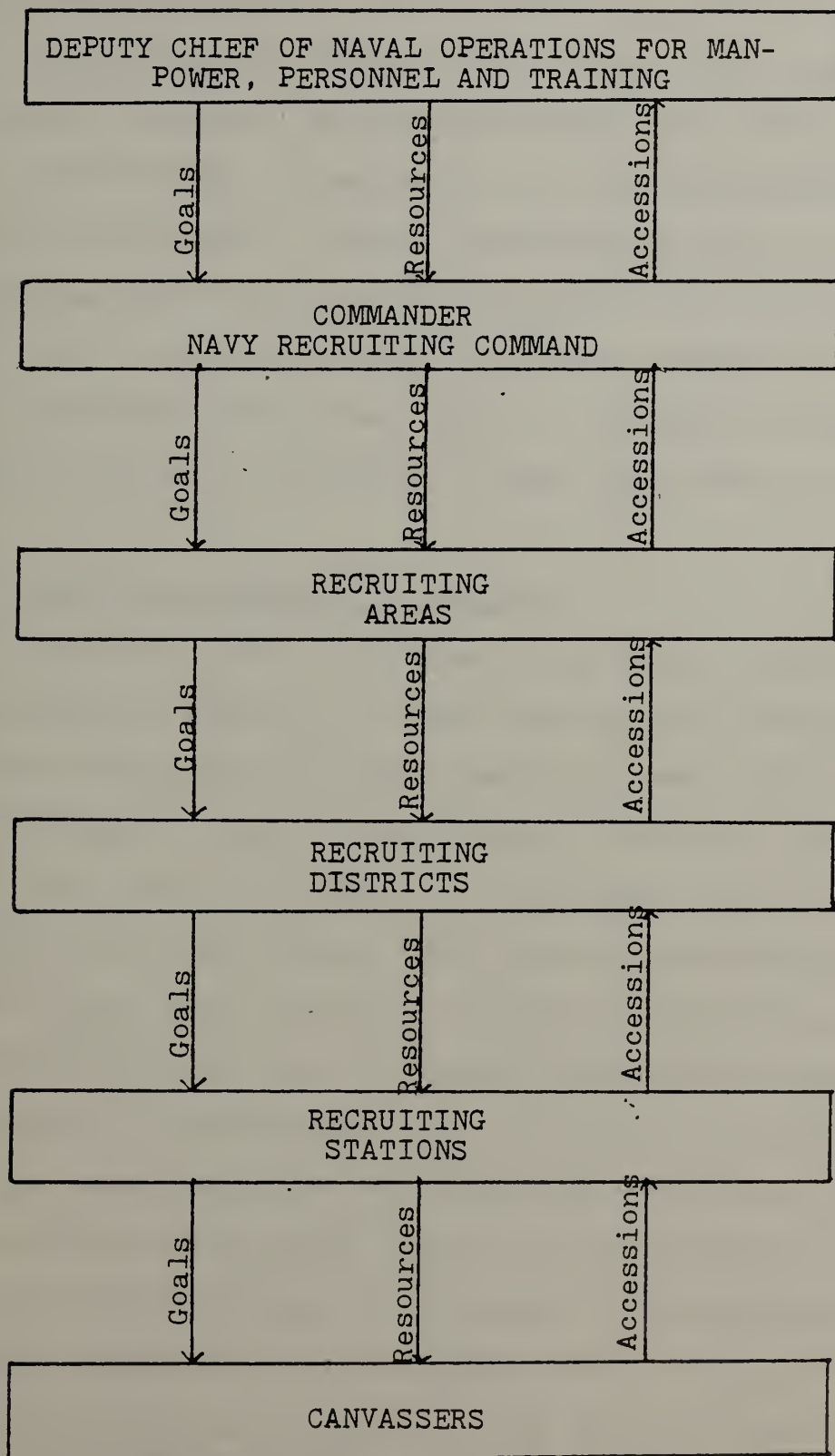
Since the canvasser recruiter will be the major focus of this analysis, it would seem appropriate to define the term canvasser as it will be used in this research.

"A canvasser in NAVCRUITCOM is an enlisted man directly involved in searching out and acquiring new enlistees and reenlistees for the Navy. When the term, recruiter is used here, it will mean canvasser. As mentioned previously, there are well over 3500 recruiters among the 6000 persons making up NAVCRUITCOM. They are distributed throughout the country and overseas in over 1300 recruiting stations. Thus, the enlisted recruiter or canvasser is the largest tangible input to NAVCRUITCOM."11

C. CANVASSER RECRUITER SELECTION PROCESS

Because the canvasser recruiter plays such a crucial part in the accomplishment of the Navy Recruiting Command's function, it is extremely important that the individuals assigned to the duty be of the very highest quality and well-suited for the demanding assignment. Unfortunately, past and present selection techniques for canvasser recruiters have failed to screen out many persons who were unable to perform effectively in the job of canvasser recruiter.

FIGURE 2



NAVY RECRUITING HIERARCHY

The Navy has had and is still having great difficulty selecting those from within its own ranks who have the potential to be good recruiters. This is a situation which needs attention because, inasmuch as good recruiters are a valuable asset in any military organization, and an irreplaceable one in the AVF environment, careful consideration must be given to obtaining only the best possible people for this assignment.

In order to put the current problems of selection of canvasser recruiters into proper focus, it appears a review of the policy related to selection of Navy recruiters is in order.

1. Draft Era Recruiter Selection

During the era of the draft, the Navy's recruiting force consisted primarily of Naval Reserve and "twilight tour" personnel whose fervor and dedication were often less than exceptional. Their jobs, however, required little more because, for most of the period of the draft, there were more volunteers for naval service than could be accommodated and the Navy "recruiting" force was largely an order-taking/processing force which did not have to be either aggressive or impressive. Unfortunately, the personnel who comprised this force were unequal to the tremendous challenge posed by the AVF and the Navy failed to meet its recruiting goals after the disestablishment of the draft. During fiscal year 1973, immediately following the shift to the AVF, the Navy obtained only 91.8 percent of its goal of 99,870 and, despite extensive infusions of manpower and money into the

recruiting effort since that time, the Navy has still been unable to consistently meet its manpower requirements.

2. Selection of Navy Recruiters After the Establishment of the Navy Recruiting Command and the AVF

Recognizing the need for both more and better recruiters to meet the demands of the AVF, the Navy began selecting top-quality petty officers for recruiting duty and began developing improved techniques for screening these petty officers in order to be able to better identify those who could function effectively in the recruiting environment. The process of attempting to select potentially more successful personnel for recruiting billets has been less effective than anticipated, however, because there are no specific agreed-upon criteria or good predictors of recruiter success which can be used in the recruiter selection process.

The task of making judgements regarding an individual's probability for success in recruiting is further complicated by the fact that there is disagreement as to what the recruiter's job really is and what constitutes success. There is no command-wide measure of effectiveness against which recruiters can be judged and from which standards for selection of replacement recruiters can be drawn.

While the Navy Recruiting Command has experienced substantial development from its position of the sixties when any career Navy individual could administer tests and process applications for young men who desired to join the U.S. Navy as an alternative to being drafted, the selection procedure has still not been refined to the point where it incorporates

reliable predictive factors regarding a recruiter's probability of success. The Navy man or woman who is currently in, or anticipates starting, a tour of duty in recruiting must both do and be many things. The present selection process involves a service record screen, both at the individual's parent command and by the Navy Military Personnel Command in Washington. Then the individual is interviewed by the current commanding officer to determine whether or not they possess the "education level, poise, personality, and ability to communicate" necessary to be a "salesperson for the Navy." Detailed selection procedures are contained in Appendices A and B.

D. REVIEW OF THE LITERATURE PERTAINING TO RECRUITER SELECTION

A number of studies have been undertaken to ascertain the characteristics of a good recruiter so they could be codified for use in procedures to select future recruiters. Brief synopses of some of these studies follow.

1. Institute for Personality and Ability Testing (IPAT)¹²

This study involved the development of a personality test to be used in the process of selecting active duty Navy personnel to serve as recruiters. The test, the 16PF-m, was a variation of the 16PF, a highly-regarded "personality inventory" which was widely used in sales selection procedures in business and industry.¹³ The 16PF-m was developed by IPAT as a test to predict sales ability.

"...specifically prepared for use by the Navy Recruiting Command that includes the 16 Personality Factor Questionnaire Form A, 1967 edition and a supplement containing a motivational distortion scale designed to measure the strength of interest in a career as a naval recruiter."¹⁴

The data used in developing the special form of the 16PF-m was derived from demographic information concerning the sample recruiters and their performance on the 16PF-m. The objective was to find a set of weights for the psychological tests and demographic variables which would best predict success as a naval recruiter, as determined by the commanding officer's overall rating of the individual's performance. The linear equation which was developed accounted for twelve percent of the variance in the ratings for the recruiters tested. The Navy Recruiting Command decided to use the test as a method for screening out personnel not considered suitable for a recruiting assignment. A score of sixty-five on the 16PF-m, which was predicted to give seventy-two percent accuracy, was recommended by the IPAT study team but the Navy Recruiting Command elected to use a score of thirty-five, thus, considerably reducing the predicted reliability of the test as a selection tool. The test was administered to active duty Navy personnel who were being considered for a recruiting assignment and if they scored below thirty-five they were considered unqualified for recruiting duty and could not receive orders to such an assignment without special permission from the Navy Recruiting Command.

"Considering the important function of the 16PF test at NAVCRUITCOM, it would seem that one successful application provided very scanty evidence of its validity. First, the reliability of the ratings was, no doubt low. Second, since the policy used by the raters in making their judgements is not known, what the test is actually predicting is not known. Third, the efficiency of the prediction is very low. Moreover, the prediction equation has not been validated as a selection device. Traditionally, with a low index as was obtained in the study, the number of false positives and false negatives would completely negate the utility of the device for selection purposes."¹⁵

In a memorandum to the Chief of Naval Personnel in 1977 the Commander, Navy Recruiting Command stated that there was currently no effective screen to determine an individual's salesmanship ability. The use of the 16PF-m had been discontinued over a year before when NAVCRUITCOM (Code 10) and Pers 502 mutually agreed that it was not an effective predictor of sales ability. In fiscal year 1976, of the approximately one thousand personnel who took the 16PF-m, only thirty-one were not assigned to recruiting duty due to failing the test.

2. Bennett and Haber¹⁶

This research investigated the different factors which effect the productivity of marine recruiters. The study analyzed productivity as a function of sixteen variables made up of recruiter's characteristics. The characteristics were primarily demographic in nature and included such items as General Comprehension Test (GCT) scores, age, race, level of education, etc. Data was collected from two-hundred and fifty-nine recruiters at twenty-nine Recruiting Stations throughout the United States for fiscal year 1971.

While some interesting information was gained from the study, the model developed is not considered to have predictive power because the selected characteristics explained only twelve percent of the variance in recruiter productivity, and many of the variables were very highly correlated with each other.

3. Best and Wylie¹⁷

Another study designed to identify characteristics of a successful recruiter which could be incorporated in the selection procedure for Navy recruiters was conducted by Best and Wylie in 1974. Their research included a survey of currently active U.S. Navy recruiters who had been on the job at least two months. The authors felt that the approach to predicting a level of recruiter performance by evaluation of identifiable, individual characteristics was not without merit. The only predictor which was used by the Navy at the time of the Best and Wylie research was the 16PF-m which, as discussed earlier, was far from a proven predictor of recruiter success.

The Best and Wylie research showed that education level was not a good predictor and that recruiter age played an important role in individual recruiter performance. The sample age analysis indicated that recruiters in their early thirties generally received more favorable performance evaluations regarding their recruiting performance; persons in their late thirties and forties did not seem to do as well as the younger men. This trend was probably related to the

fact that recruiting duty, during the era of the draft, was viewed by many as a place where senior servicemen could complete the three elements viewed by many as the "Canons of the Twilight Tour." These three elements consisted of assignment to a recruiting billet, establishment of the individual within the local community and submission of retirement papers when eligible, (and threatened with a sea duty assignment). This twilight tour, in many instances, was characterized by a slow decrease in individual effort and production.

4. Borman, Hough and Dunnette¹⁸

This research attempted to develop a more refined measure to reflect the judgement of superiors and peers in a rating scale of recruiter performance. Anecdotal statements about the characteristics of good and bad recruiters were obtained from recruiters and their supervisors. Then, a rating scale, containing these descriptions was given to the recruiters and their supervisors in order to see how they rated themselves, their peers and their subordinates in comparison to the characteristics of good and bad recruiters, as set forth in the anecdotes. This behaviorally based scale describes how a good (or bad) recruiter should behave, in the opinions of peers and superiors, but in no way explains how effective such behavior is in acquiring recruits, since good or bad is not defined in terms of accessions but rather in terms of the opinions and perceptions of the individual recruiter, his superiors and peers.

The results of the research showed that, for the most part, peer and self-ratings possess good convergent and discriminant validity. The study also indicated that generally, supervisors do not appear knowledgeable enough about field recruiter's activities to provide detailed performance evaluations and that the supervisors rate recruiters primarily by reputation. This indication was substantiated by anecdotal evidence as supervisor raters in the study spontaneously reported to the researchers that they had difficulty evaluating recruiters in as much detail as was required.

While the study did indicate some interesting aspects of recruiter characteristics, this particular device is not considered to have much value as a tool for selection of new canvassers since the promising results obtained on the self and peer ratings were undoubtedly heavily dependent on the manner in which the scales were administered. The experienced interviewers and the relaxing environments in which the data contained in this study were collected would be difficult to duplicate with any consistency for a long-term selection process. Thus, the technique seems rather impractical for widespread use by the Navy Recruiting Command.

5. Arima (1978)¹⁹

In a study of over 250 Navy recruiters in California during 1978 Arima found that only modest portions of the variability in individual recruiter productivity could be predicted from characteristics of the recruiter's territory. Results of this research indicated that total recruiter

production was determined approximately equally by (1) the personal characteristics and abilities of the recruiter and (2) the potential of the recruiting station territory and the NRD in which it is located. The analysis showed that within each Navy Recruiting District, differences in production among recruiters were due just as much to the characteristics of the recruiters themselves and change factors (the residual) as to differences in territorial potential at the recruiting stations. Arima's research also indicated that there do not seem to be any "off the shelf" objective indices of recruiter motivation and effort that could be used.

III. APPROACH

A. RESEARCH OBJECTIVES

Over the years there have been numerous attempts to develop a success predictive model that the Navy could use to help select personnel for assignment to recruiting duty. The purpose of this study is not to come up with a definitive model, but rather to investigate some possible objective criteria which could be used in developing such a model and to relate these characteristics/variables to recruiter effectiveness, as defined below.

Specific goals of this study are:

- To develop a measure of effectiveness which represents the individual recruiter's efforts and contribution to the organization and which could be used as a basis for examination of recruiter costs.
- To identify objective characteristics, which are easily obtainable from Navy enlisted personnel records, and which, in combination, help explain the variance in recruiter performance.
- To specify predictive recruiter selection criteria which are easy to use and which appear to be of value in identifying individuals who will be either measurably good or particularly bad on recruiting duty.

This research involved analysis of performance data on a sample group of Navy recruiters during a specified test period and analysis of the relationships of this performance data with individual characteristics.

B. DEFINITION OF STUDY DESIGN

1. The Test Period

The test period in the study ran from January 1, 1977 to August 30, 1978. The test period was used to provide a common time frame during which the sample recruiters' performance could be checked in order to establish the measure of effectiveness/success criterion used in this research.

2. The Sample Population

The study plan required identification of all recruiters who would be in the field for the entire test period. This was done by checking the estimated time of arrival (ETA) column of the Navy Recruiting Command Alpha List* for September 1977. All canvassers whose ETA's fell between August 30, 1975 and December 1, 1976 were included in the sample because, since the normal recruiting tour is thirty-six months, all individuals with ETA's between those dates were programmed to be in the field for the entire test period. The names, rates, paygrades, projected rotation dates, Areas and Navy Recruiting Districts (NRDs) of sample group personnel were obtained from the Alpha List.

The sample group, which consisted of 1262 recruiters, was limited to male, active duty canvasser recruiters* because they represent the bulk of the work/production force of the Recruiting Command. Women, temacs* and supervisory personnel, such as Recruiters in Charge (RINCs), Zone

Words/phrases followed by an asterisk () are defined in Appendix C.

Supervisors (ZSs) and Chief Recruiters (CRs), were excluded from the sample group because factors in the recruiting assignments of personnel in each of these groups impact on their opportunities to achieve high recruiting productivity and it was felt that inclusion of these personnel in the research might be detrimental to the process of identifying success predictive characteristics for canvasser recruiters. It is left for future studies to identify success predictive characteristics for these groups should a need exist for such information.

3. Performance Measure

There was a need to develop some universal NAVCRUITCOM-wide criteria by which a recruiter's effectiveness could be measured. Traditionally, each recruiter has been judged by attainment of the assigned recruiting quota. However, this system is not universal because quotas are determined by each Area and Navy Recruiting District separately. There is currently no NAVCRUITCOM-wide minimum acceptable standard against which the performance of all recruiters throughout the Navy Recruiting Command can be measured or compared. Without some common standard, it is impossible to determine their relative performance.

The question of whether raw production figures, in and of themselves, are appropriate measures of recruiter effectiveness, in comparison with other recruiters, is of concern since the production requirements vary from Navy Recruiting District to Navy Recruiting District. However,

the ease and simplicity of using the raw production figures or quota attainment as a measure of effectiveness makes it convenient to do so and thus, many studies use it.

In order to avoid the question of whether a district quota is being assigned on a rational basis, and to preclude the effects of different quotas in different places impacting on the measure of effectiveness, this research used number of appearances on the NAVCRUITCOM Honor Roll as the measure of effectiveness against which recruiter characteristics were compared in order to attempt to develop some predictor factors for recruiter selection. The manner in which the measure of effectiveness used in this study was derived is as follows:

The number of Honor Roll listings for all individuals in the sample group was determined by checking all monthly NAVCRUITCOM Honor Rolls beginning with January 1977 and ending with August 1978, the test period. Then, the mean and median number of times on the Honor Roll for the sample group were computed.

Following determination of Honor Roll performance by the sample group, research was conducted to determine how many of the original sample group actually remained on recruiting duty for the entire twenty month test period. This was done by cross-checking the names from the original sample group against the NAVCRUITCOM Alpha List for August 1978. Individuals whose names did not appear on this second Alpha List were assumed to have been dropped from their Navy Recruiting

Districts by means of either a fault* or no fault* transfer or retirement/Fleet Reserve. It was further assumed that such early transfer from recruiting duty was indicative of poor recruiting performance on the part of the individual concerned, therefore, persons who fell in this group were categorized as "drops" for purposes of further data analysis. They are included in the subgroup, ALLDROP; they are considered to have failed to perform acceptably in a recruiting assignment.

All individuals who remained in the field as canvassers for the entire test period were included in the combination of subgroups, ALLSUCCESS and ALLMEDIocre. Those in this subgroup who appeared on the Honor Roll less than the median number of times were categorized as ALLMEDIocre. These personnel, while apparently better than the canvassers who were transferred early by their Navy Recruiting Districts, failed to achieve the production standard used as the measure of effectiveness in this research.

The last category of canvassers contained in this study was comprised of those canvassers who were in the field during the whole test period and on the Honor Roll the median number or more times during the test period. These personnel were included in the subgroup ALLSUCCESS.

The performance of recruiters who remained in the field for the entire twenty-month test period was analyzed in determining the measure of effectiveness/success used in this research. The mean and median of the combination of ALLSUCCESS

and ALLMEDIocre was calculated and the value for the median was chosen as the measure of effectiveness for the analyses contained in the remainder of this research. The median value, three, reflects the Honor Roll performance of the top fifty percent of all of the recruiters in the sample group who remained in the field during the entire test period. It was considered logical to attempt to identify characteristics of individuals in the top fifty percent for possible use in future selection procedures for Navy recruiters since one of the objectives of the study was to identify criteria for predicting recruiter success.

4. The Variables

Personnel included in the sample group were matched with demographic data available from information collected at the Enlisted Navy Recruiter Orientation Detachment in Orlando, Florida (ENRODETORL). The independent variables included for analysis were selected on a basis of logical significance and data accessibility. Special interest was directed toward those data which could easily be ascertained for each individual in the sample prior to beginning a recruiting assignment. One final consideration should also be mentioned, i.e., perceived relevance. The data from ENRODETORL, Education, active duty, GAM score and SAB score along with the paygrade and rate information already obtained from the NAVCRUITCOM Alpha Lists was included in the following variables.

a. Dependent Variable, Honor Roll Performance (HONR)

This variable represents the number of times an individual recruiter appeared on the NAVCRUITCOM Honor Roll

during the test period. Although levels of performance on the Honor Roll are reported, i.e., five, six,...12, etc., this research makes no distinction between the different levels of performance and simply considers each Honor Roll appearance as representing the minimum level required to qualify for the Honor Roll, i.e., five recruits in the month.

b. Independent Variables

(1) Paygrade (PAYG). This variable shows the military paygrade in which each of the individuals in the sample group was serving during the test period.

(2) Education (EDUC). This variable shows the highest grade of formal education completed by each of the individuals in the sample group. The code, 99, in the data for this variable indicates that the individual obtained a Graduate Equivalency Degree (GED). In the analysis, GED is computed as the equivalent of the completion of ten years of formal education.

(3) Active Duty (ACDU). This variable shows the number of years of active military service completed by the individuals in the sample group.

(4) General Comprehension Test, Arithmetic and Mechanical Score (GAMX). This variable shows the combined score for General Comprehension/verbal, arithmetic and mechanical skills, obtained by individuals in the sample group, on the Navy's enlisted entrance test.

(5) Sales Aptitude Battery/16PF-m Test Score (SABX)

This variable shows the score obtained by individuals in the sample group on the Sales Aptitude Battery/16PF-m test.

(6) Rate (RATE). This variable shows the Navy rate in which the individuals in the sample group were serving during the test period. Codes for rates are contained in Appendix D.

(7) Age. This variable was included in preliminary calculations but was found to be so highly correlated with both PAYG and ACDU that it was dropped from the study because it made no unique contribution in the regression analyses.

5. Deficiencies in the Variables

Ideally, values for all variables for all individuals in the sample population would be obtained. However, time and practical considerations precluded amassing complete data, therefore methods for handling cases with missing data were incorporated in the statistical techniques employed.

6. Focus of the Research

This research differed from previous studies in that it dealt purely with objective variables and defined a measure of effectiveness in terms of a NAVCRUITCOM-wide standard which was known throughout the Recruiting Command.

7. Statistical Methods Employed

A frequency analysis was conducted on each subgroup; ALLMEDIocre sample group personnel who completed the entire twenty-month test period; ALLSUCCESS those who completed the test period and achieved the MOE defined in this research; ALLDROP those who failed to complete the test period, as well as upon the entire sample group, all these frequency analyses are shown in Appendix E.

A multiple regression analysis was also done on each of the aforementioned subgroups and, again, on the entire sample population in order to develop an equation which could be used to help predict recruiter success. This analysis tested whether any of the demographic characteristics, among the six independent variables in the study, impacted significantly on the recruiter's ability to perform successfully, as defined by the measure of effectiveness explained earlier in this paper. Regression analyses are shown in Appendix F.

The data was analyzed using a variety of regression techniques in order to ensure that all relevant contributions of the independent variables were given full consideration. The techniques employed included pairwise regression, regression with inclusion of missing data and listwise/stepwise regression.

Pairwise regression analysis is accomplished by having each independent variable regressed against the dependent variable individually; without consideration of missing values for other independent variables. This technique results in different numbers of cases being included in the regression calculations for each of the independent variables.

Multiple regression which includes missing values in all calculations results in the same number of cases being included in all regression statistics but the statistics are based on computations which included cases with incomplete data.

The listwise/stepwise multiple regression technique begins with the best single predictor, then adds the next best single predictor to the equation, and so forth. By examining the increase in predictability from step to step, it is possible to terminate the process at some stage where: (a) predictability is high; (b) the resulting equation is not overly complex; (c) the equation's accuracy in future work is expected to be highest.²⁰

Test calculations of the data were done using pairwise regression and regression which included missing data. However, both of these alternate regression methods resulted in a small value for the coefficient of determination (R^2) for all subgroups. While some interesting information was obtained using these techniques, it was concluded that the use of more data, with different sample sizes for different variable computations, which these other regression options allowed, was not only an inferior statistical method to the listwise/stepwise deletion regression method originally chosen, but also added nothing significant to the analysis and so was discarded from the information to be reported upon in this research.

IV. ANALYSIS AND FINDINGS

A. EXAMINATION OF THE FREQUENCY ANALYSES

The frequency analysis for each of the independent variables was examined for the entire sample group (ALL) and for the subgroups (ALLMEDIOCRE) those who completed the twenty-month test period; (ALLSUCCESS) those who completed the test period and achieved the level of productivity defined as success in this research; (ALLDROP), those who failed to complete the test period. Comparison of the proportion of each variable value and combinations of variable values of each of the independent variables in the whole sample group with their proportions in the subgroups were made to determine whether proportionately more or less of the sample group, at each variable level appeared in each of the subgroups. Proportionately greater representation in the ALLSUCCESS subgroup, as compared to representation in the total sample group, indicated that individuals with that characteristic had a tendency to perform better, on the average than might be expected. Whereas, proportionately greater representation in the ALLDROP subgroup indicated poorer performance, on the average.

1. Examination of the Frequency Analyses by Independent Variable

a. Variable V2, Paygrade

Table I shows the number and percent of sample group representation for each value of the Variable, PAYG.

TABLE I

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V2 PAYGRADE (PAYG)

PAY- GRADE	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
E4	2	.2	2	.2	0	0	0	0
E5	239	18.9	178	17.5	89	15.9	61	24.9
E6	532	42.2	433	42.6	282	50.4	99	40.4
E7	335	26.5	272	26.7	148	26.4	63	25.7
E8	116	9.2	98	9.6	32	5.7	18	7.3
E9	36	2.9	32	3.1	7	1.2	4	1.6

A Chi-Square test, ALLSUCCESS against ALL for each of the paygrades, was conducted on the data contained in Table I to determine the statistical significance of the proportional changes shown. The Chi-Square test showed significance at the .001 level indicating that the proportional changes show a relationship between the paygrade of the individual and their performance on recruiting duty. A second Chi-Square test on the E4/5 and E8/9 paygrades combined showed an even higher statistical significance, .0005, when considered for the ALLSUCCESS subgroup.

The table shows that proportionately fewer E5's appear in either combination of the ALLSUCCESS & ALLMEDIocre or ALLSUCCESS subgroups and that proportionately more are included in subgroup ALLDROP than their numbers would

indicate should. The results of Chi-Square tests on the data indicate the significance of this relationship is high.

Among E6's, the table indicates that they appear in just about the expected numbers in the combination of ALLSUCCESS & ALLMEDIocre subgroups but seem to do significantly better than would be expected in subgroup ALLSUCCESS. This data suggests that E6's perform better in relation to the measure of effectiveness, as defined in this research, than persons in any of the other paygrades. E6's also seem to have slightly fewer, proportionately, in the ALLDROP group than would be expected. The Chi-Square statistic for E6 in the ALLSUCCESS subgroup verifies that this pay level does do measureably better than expected with a .0005 level of significance.

The performance of both E8's and E9's indicates approximately the expected proportions in the combination of subgroups ALLSUCCESS and ALLMEDIocre but proportionately less in the ALLSUCCESS and ALLDROP subgroups than would be expected. While the two senior enlisted paygrades have proportionately lower incidence of outright failure in recruiting assignments, as indicated by their low percentage representation in the subgroup ALLDROP, their success rate is significantly lower than the success rate for all other paygrades. In this regard, 37.2 percent of all E5's, 53 percent of all E6's and 44.2 percent of all E7's were in subgroup ALLSUCCESS as compared to only 27.6 percent of all E8's and 19.4 percent of all E9's. It may be that while

the top two enlisted paygrades are not contributing their fair share to NAVCRUITCOM's success, as judged by the measure of effectiveness defined in this research, they are not bad enough to cause their NRD's to drop them. Their low NRD drop rate may also reflect a tendency on the part of officers to give senior enlisted more of the "benefit of the doubt," than they would if junior personnel were involved.

Another factor which may help explain the lower NRD drop rate of the senior enlisted paygrades in comparison to their success rate, is that senior enlisted seem to encounter fewer monetary problems which interfere with their performance and cause administrative problems for their NRDs than do the more junior enlisted personnel. The NRDs may have a tendency to let the less visible, low production senior enlisted recruiter remain in the field because they are not also causing other problems which lower rated recruiters often do.

The fact that E8's and E9's appear in the combination of subgroups ALLSUCCESS and ALLMEDIocre in about the expected proportions but in the ALLSUCCESS subgroup significantly less than expected could also be a manifestation of the "Canons of the twilight tour" which was discussed in Chapter II.

A final possible explanation for the poor representation of E8's and E9's in subgroup ALLSUCCESS is that, although these personnel are shown as performing in canvasser billets on the NAVCRUITCOM Alpha List, they may actually have

been performing in supervisory positions which, with added administrative responsibilities, often result in lower production. In many NRD's supervisory personnel such as RINCs, ZSs, and CRS are either not given a quota at all or are given a reduced quota to compensate for their additional management responsibilities.

b. Variable V3, Education

The variable values for education were grouped into four categories for analysis, less than twelve years of education, graduation equivalency, twelve years of education, and over twelve years of education. Table II shows the number and percent of sample group representation for each aggregated value of this variable.

TABLE II

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V3, EDUCATION (EDUC)

EDUCATION LEVEL	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	#	%	#	%	#	%	#	%
Less than twelve	32	5.6	26	5.9	16	5.9	6	4.4
GED	85	14.8	61	13.9	40	14.8	24	17.8
Twelve	360	62.6	275	62.5	166	61.5	85	63.0
More than twelve	98	17.0	78	17.7	48	17.8	20	14.8

Chi-Square analysis of the data shown in Table II reveals no statistically significant relationships. Proportions for all education levels were about as expected for all subgroups.

c. Variable V4, Active Duty

The variable values for active duty were grouped into four categories for analysis two to five years, six to fourteen years, fifteen to twenty years and twenty-one to twenty-eight years of active duty. Table III shows the number and percent of sample group representation for each aggregated value of this variable.

TABLE III

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V4, ACTIVE DUTY (ACDU)

ACTIVE DUTY	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
Two to five years	120	20.9	97	22.0	60	22.2	23	17.2
six to fourteen years	276	48.0	216	49.0	135	50.0	60	44.8
fifteen to twenty years	162	28.2	119	27.0	70	25.9	43	32.1
twenty- one to twenty- eight years	17	3.0	9	2.0	5	1.9	8	6.0

A Chi-Square test for ALLDROP against ALL on the data for recruiters with two to five years and twenty-one to twenty-eight years active duty indicated no statistically significant relationship between the proportions for subgroup ALLSUCCESS but a significance of .05 was indicated for the recruiters with two to five years and twenty-one to twenty-eight years of active duty in subgroup ALLDROP.

As shown in the table, recruiters with two to five years active duty had slightly more in the ALLSUCCESS subgroup than expected and less in the ALLDROP subgroup.

Representation of those with fifteen or more years of active service was both proportionately lower in the ALLSUCCESS subgroup and higher in the ALLDROP subgroup than expected. Specifically, representation of those with twenty-one to twenty-eight years active duty in the ALLDROP group was proportionately double the expected level. Only 29.4 percent of the twenty-one to twenty-eight year category was in the ALLSUCCESS subgroup with 47.1 percent in the ALLDROP subgroup. A possible explanation for this higher representation in the ALLDROP subgroup is related to the "Canons of the Twilight Tour," which was discussed earlier. Recruiters who have served long enough to retire or go into the Fleet Reserve may take this route when they discover the reassignment is not to their liking.

d. Variable V5, Enlisted Entrance Test Score

The variable values for Enlisted Entrance Test Score were grouped into four categories, 101 to 129, 130 to 150, 151 to 180 and 181 to 203. Table IV shows the number and percent of sample group representation for each value of this variable.

TABLE IV

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V5,
ENLISTED ENTRANCE TEST SCORE

GAM SCORE	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	#	%	#	%	#	%	#	%
101- 129	27	7.2	19	6.6	14	7.6	8	9.5
130- 150	83	22.2	67	23.1	45	24.3	16	19.0
151- 180	205	54.8	157	54.1	102	55.1	48	57.1
181- 203	59	15.8	47	16.2	24	13.0	12	14.3

Chi-Square analysis of the data contained in Table IV indicates no strong statistical significance. The level of significance for both subgroup ALLSUCCESS and ALLDROP against ALL is .20.

No strong trends are evident from the Enlisted Entrance Test Score, V5 data. However, a few observations can be made. It appears, from Table IV, that a slightly higher proportion of those with low GAM scores were in the ALLDROP subgroup than their numbers would indicate should be. It is also noted that those with scores between 130 and 150 were proportionately slightly better represented in the ALLSUCCESS subgroup and slightly less in the ALLDROP subgroup than might have been expected.

e. Variable V6, Sales Aptitude Battery Test Score (SABX)

Chi-Square analysis of the data in Table V reveals no strong statistical significance. The level of significance for the proportions of recruiters with scores between 65 and 80 was slightly higher than .30 for subgroup ALLDROP and slightly higher than .20 for subgroup ALLSUCCESS when compared with the expected representations derived from their percentage representations in the ALL category.

Data analyzed for the Sales Test score seemed to verify the claims of the original 16PF-m study, i.e., that persons with scores above sixty-five would be more successful on recruiting duty. Variable values for the sales test score were divided into four categories, thirteen to thirty-four, thirty-five to sixty-four, sixty-five to seventy-nine and eighty and above. Table V shows the numbers and percentage representations of each of these categories for the sample group.

It should be noted, however, that only 28.1 percent of the recruiters in the sample group achieved sales test scores of sixty-five or higher and that only 22.0 percent scored between sixty-five and eighty. Thus, even if further research proves that the SAB/16PF-m is an effective predictor of recruiter success, it might be difficult to find enough active duty enlisted personnel who can score high enough on the test to provide the required number of recruiters. Therefore, the SAB, while potentially an effective predictive device, might not be a practical one if too few potential recruiters are able to attain acceptable scores on it.

TABLE V

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V6,
SALES APTITUDE BATTERY TEST SCORE (SABX)

SAB TEST SCORE	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	#	%	#	%	#	%	#	%
Thirteen to Thirty- four	15	4.2	9	3.5	4	2.6	6	6.1
Thirty- five to sixty-four	243	67.7	175	67.3	99	65.1	68	68.7
Sixty-five to eighty	79	22.0	62	23.8	41	27.0	17	17.2
Eighty-one and above	22	6.1	14	5.4	8	5.3	8	8.1

For example, there are approximately 460,000 enlisted personnel in the Navy. Twenty-eight percent represents 128,800 enlisted personnel who could score 65 or better on the SAB; assuming the all-Navy percentage in this category would be as high as for the group of volunteers comprising the sample for Table V, which is probably optimistic. With 3500 enlisted recruiters required to fill NAVCRUITCOM billets and enlisted personnel serving no more than one tour in recruiting, on the average, approximately twenty percent of the enlisted personnel who could score 65 or higher on the SAB would have to volunteer for recruiting duty. Although this fraction may not be unachievably high, the logistic problem of giving the SAB test to large numbers of fleet sailors in order to identify the ones whose scores are high enough could be more trouble than it's worth, especially considering that less than half of the recruiters scoring 65

or higher achieved "success" status and over one quarter scoring this high were early drops.

f. Variable V7, Rate

Analysis of rate by individual rate, while desirable, was not practical because of the extremely small numbers of sample group personnel in a significant number of rates. Therefore, the variable values for this variable were combined into four categories, aviation, administration and support, deck and engineering and civil engineer. Appendix G shows the individual rates included in each of these categories.

Table VI shows the numbers and percentages of the sample group which appear in each of the four categories.

TABLE VI

FREQUENCY ANALYSES/PROPORTIONAL DATA FOR V7, RATE

RATE GROUP	ALL		ALLSUCCESS & ALLMEDIocre		ALLSUCCESS		ALLDROP	
	#	%	#	%	#	%	#	%
Aviation	207	16.4	170	16.8	99	17.7	37	15.1
Admin/ Support	390	30.9	326	32.1	172	30.9	64	26.1
Deck/ Engineering	626	49.6	489	48.3	267	47.8	137	56.0
Civil Engineer	36	2.9	29	2.9	20	3.6	7	2.9

A Chi-Square analysis failed to show any significance for the proportions in the ALLSUCCESS subgroup but a significance level of .05 was found for the ALLDROP subgroup against ALL for the four rate group.

As can be seen in the table, recruiters in the Aviation category were represented in the ALLSUCCESS subgroup proportionately more and in the ALLDROP subgroup proportionately less than expected. Those in the Administration and Support category were represented in ALLSUCCESS proportionately about as expected and less in the ALLDROP subgroup than expected.

The deck and engineering category were in the ALLSUCCESS subgroup proportionately less than expected and the proportion of this group in the ALLDROP group was significantly greater than expected. The Chi-Square statistic ALLDROP against ALL for the deck and engineering group alone and all other groups combined was significant at the .05 level.

The relatively poor performance of the Deck and Engineering rates might be indicative of a motivation problem among primarily sea-going active duty personnel concerning the type of duty they find that recruiting has become. These rates tend to have long sea tours and few opportunities for shore assignments so when they are assigned to recruiting duty they may be unprepared to approach the assignment with the attitude and effort that it requires in the AVF environment. Their perceptions of recruiting may still reflect the draft-era conception that recruiting is an assignment in which sea-going sailors and their families can take a long-awaited and much-deserved respite from arduous duty. Unfortunately, the AVF has changed the demands of the recruiting assignment and it is no longer "shore duty" in the traditional sense.

B. EXAMINATION OF THE REGRESSION ANALYSES

In order to predict success, as defined by the measure of effectiveness explained in section IIIB3, it was necessary to examine the relationships between the predictor variables and, in turn, their relationship to the dependent variable representing success.

1. Preliminary Examination of Predictors of Productivity

The correlations between the variables used in this study are shown by subgroup in Table VII below. The data in Table VII represents a subgroup of 230 recruiters which were those from the sample group of 1262 with complete data.

TABLE VII

CORRELATION TABLE FOR INDEPENDENT VARIABLES
(N=230)

<u>Variable</u> with <u>Variable</u>		Correlations			
		ALL	ALLSUCCESS & ALLMEDIOCRE	ALLDROP	
V2	V3	-.060	-.098	-.078	.068
V2	V4	.759	.753	.700	.790
V2	V5	.012	-.006	.092	.072
V2	V6	.253	.230	.082	.300
V2	V7	.021	-.007	.047	.115
V3	V4	-.147	-.165	-.119	-.098
V3	V5	.283	.275	.212	.302
V3	V6	.094	.068	.155	.174
V3	V7	.029	.010	-.047	.083
V4	V5	-.123	-.131	-.967	-.106
V4	V6	.294	.322	.192	.241
V4	V7	.073	.035	.101	.181
V5	V6	.060	.077	.169	.041
V5	V7	.061	.059	.030	.061
V6	V7	.035	.100	.049	-.126

The correlation coefficient is a measure of association indicating the strength of the linear relationship between two variables. When the value approaches +1.0 or -1.0, a strong linear relationship is indicated.

Table VII shows paygrade V2 to be negatively correlated with education V3 in all subgroups except NRD drops, but in no case is the correlation coefficient significant.

It is evident, from Table VII that a strong positive correlation exists between paygrade V2 and active duty V4, in all subgroups, and this is to be expected since time in service (TIS) is a prerequisite for promotion to succeeding-ly higher levels in the Navy enlisted paygrades.

A slightly higher correlation exists between paygrade V2 and sales test score V6 for the combination of subgroups ALLSUCCESS and ALLMEDIocre and the ALLDROP subgroup at .230 and .300 respectively but the .082 correlations for ALLSUCCESS and ALL continue the trend of no strong relationship between the independent variables except for the previously noted relationship between paygrade and time on active duty.

A consistent, low-level positive correlation exists in all subgroups between education V3 and enlisted entrance test score V5. This is not an unexpected finding because people with higher test scores tend to either have more education or seek more education.

The negative correlation coefficient for all subgroups in the case of active duty V4 and enlisted entrance test score V5 might indicate a tendency on the part of persons with higher test scores to either leave the service or to get advanced to officer status. This relationship is very similar to the one which exists between education and active duty.

Active duty V4 and sales test score V6 correlation coefficients for all subgroups are positive, but because of the lack of understanding about just what the SAB/16PF-m measures, as explained earlier in this research, it is difficult to impute any meaning to these statistics.

Correlation tables for subgroups of the same population are shown at Appendix F.

2. Regression Analysis

The next step in the analysis was to conduct a multiple stepwise/listwise linear regression with HONR, V1, as the dependent variable representing success and paygrade, (V2), education, (V3), active duty, (V4), enlisted entrance test score, (V5), sales test, (V6) and rate, (V7) as the independent variables.

The listwise multiple regression analysis was done on the whole sample group, ALL, and on various subgroups of the sample group with the independent variable values aggregated into the four to six groups of values described above under the discussion of each variable in the section on "Frequency Analysis" and again considering each variable value individually. As was the case with the frequency analyses, no meaningful R^2 results were obtained when the variable values were analyzed in disaggregated form. Using this format with the multiple regression technique twenty-one percent of the variance was explained for the subgroup ALLDROP and approximately fourteen percent of the variance was explained for the subgroup ALLSUCCESS. The results of

the multiple regression for each of these two subgroups are shown in Tables VIII and IX below.

TABLE VIII

REGRESSION ANALYSIS FOR SUBGROUP ALLDROP

Variable	Multiple R	R Square	RSQ Change	Simple R
V7 RATE	0.34422	0.11849	0.11849	-0.34422
V4 ACDU	0.41111	0.16901	0.05052	-0.20306
V5 GAMX	0.44737	0.20014	0.03113	-0.18859
V6 SABX	0.45843	0.21016	0.01002	0.09351
V2 PAYG	0.46112	0.21263	0.00247	-0.21446
V3 EDUC	0.46192	0.21337	0.00074	-0.06039

Table VIII lists results of the regression for subgroup ALLDROP; in other words, it shows the value of each of the independent variables in predicting achievement of Honor Roll status for recruiters who were classed as failures. The predictor variables are arranged in descending order of their contribution to accounting for the variance in the independent variable. The best single predictor for the ALLDROP subgroup is rate, V7, with a contribution of .34422. The F statistic for this variable indicates that this contribution is significant at the .0005 level. Table VIII also shows that rate accounts for approximately twelve percent (R^2 equals .11849) of the variance in honor roll. That is, knowledge of the rate causes a reduction in variability in honor roll by almost twelve percent.

Table VIII shows that, active duty, V4, contributes the next highest amount to the variance in honor roll, with a multiple R of .06689. Again, the F statistic indicates that the contribution of this variable is significant at

the .0005 level. Table VIII also shows that active duty accounts for approximately five percent (R^2 equals .05052) of the variance in honor roll.

The third variable entered in the regression procedure, enlisted entrance test score, V3, contributes another three percent (R^2 equals .03113), with the contribution, once more, significant at the .0005 level.

Given the values for rate, active duty, and enlisted entrance test score, the other individual variables contributed little additional information about honor roll. While the simple correlations of these variables with honor roll are greater than zero, they do not change the total explanation by much in total. This was especially true in the case of paygrade because since it was so highly correlated with active duty, as shown in Table VIII, it largely duplicated active duty's contribution, and made essentially no unique contribution to predicting honor roll and ranked fifth among the predictor variables. The relatively low contribution to predicting a low level of success of sales test score (V6), the 16PF-m test score, is also noteworthy.

TABLE IX

REGRESSION ANALYSIS FOR SUBGROUP ALLSUCCESS

Variable	Multiple R	R Square	RSQ Change	Simple R
V3 EDUC	0.23528	0.05536	0.05536	0.23528
V2 PAYG	0.30012	0.09007	0.03472	0.15918
V5 GAMX	0.33733	0.11379	0.02372	-0.07675
V7 RATE	0.35922	0.12904	0.01525	0.12176
V6 SABX	0.37268	0.13889	0.00985	-0.07933
V7 ACDU	0.37335	0.13939	0.00051	0.08861

The best single predictor for subgroup ALLSUCCESS is education, (V3), with a contribution of .23528, which has an F statistic of 5.85989 indicating significance at the .025 level. Table IX also shows that education accounts for approximately five and a half percent (R^2 equals .05536) of the variance in honor roll.

None of the other variables added much to the explanation of honor roll as the change in the multiple R column after the addition of four more variables is only a little more than .07 and the change in R^2 is just over two and a half percent. Again, the poor performance of SABX in predicting the outcome is noteworthy.

The results of the multiple regressions indicate that knowledge of rate and active duty will be useful in predicting failure on recruiting duty while knowledge of education and paygrade will be useful in predicting success. Interestingly enough, enlisted entrance test score, V5, was the third best predictor for both success and failure contributing a little over two percent in the case of success (R^2 equals .02372) and just over three percent in predicting

failure (R^2 equals .03113). In both cases the F statistic showed the contribution of enlisted entrance test score to be significant at the .01 level.

Regression tables for the whole sample group ALL, and subgroups of the sample group are contained in Appendix F.

Additional regression analyses were performed upon the data from the sample group using a new definition of the dependent variable. This new definition divided the sample data in a variety of ways and sought to explain a greater proportion of the variance by analyzing the data based on the either/or situation of completion of the twenty-month test period or not, i.e., the combination of subgroups ALLSUCCESS and ALLMEDIocre represented success and ALLDROP represented Failure. Further divisions of the data with various levels of Honor Roll performance, from one to five times on the Honor Roll, representing success were also analyzed. None of these additional regression analyses explained more than eight percent of the variance in recruiter performance therefore detailed results are not presented in this research.

V. COST IMPLICATIONS

In the opening chapter of this research, the Navy's current and future manpower problems were discussed with special emphasis placed on the role played by the Navy Recruiting Command. Specifically, attention was centered upon enlisted recruiters in the effort to help resolve these problems. Because the enlisted recruiter is the most important resource input to NAVCRUITCOM and plays such an indispensable role in accomplishing the command's mission, improved selection of enlisted recruiters will lead to more effective recruiter assignment policies for these important NAVCRUITCOM personnel and result in cost savings in a number of areas.

A. PERSONNEL COSTS IN THE RECRUITING COMMAND

"Formally defined, cost is a sacrifice incurred to obtain some anticipated benefit or service."²⁰

The benefit anticipated, in the case of Navy recruiters is the use of the talents of these personnel to obtain new recruits for the Navy. Costs associated with these enlisted recruiters are considerable, both in terms of money spent to acquire their services and in terms of human resources misapplied. The monetary costs which NAVCRUITCOM incurs in manning its recruiting force fall into two categories, (1) acquisition costs and (2) learning costs.²¹

1. Acquisition Costs

Acquisition costs include recruitment costs, selection costs and hiring and placement costs. The Recruiting Command incurred recruitment costs in supporting a team of experienced recruiters who travelled around to various Navy activities and explained the recruiting job to active duty Navy personnel. Recruitment costs were also expended to produce and distribute films about recruiting duty which were made to inform commands and individuals throughout the Navy of the specific responsibilities of a recruiter.

Selection costs were also represented by the time and effort spent by commands in the Navy to determine if volunteers for recruiting duty were qualified for the requested assignment. Included in this cost category were interviewing, testing and administrative costs of processing applicants.

The final category of acquisition costs, hiring and placement costs, were those that had to be incurred to bring an individual into the recruiting organization and place him on the job. These included moving and travel expenses and administrative costs of placement at the recruiter's final destination.

2. Learning Costs

A significant cost category for the Navy Recruiting Command was the whole area of learning costs. These costs represented the sacrifice that must be incurred to train a person and bring him to the level of performance normally

expected from an individual in a given position and the differential cost incurred until an individual achieved the level of productivity normally expected in a given position. A myriad of other costs are included in the learning cost category such as: the expense of formal training programs with their attendant trainer and trainee salaries. For NAVCRUITCOM these costs were expended on the Enlisted Navy Recruiter Orientation Detachment in Orlando, Florida. Other training costs were the opportunity cost of lost performance of other personnel in the command, in addition to the trainee, which resulted because the interaction of these other personnel with the trainee during his learning tended to decrease their productivity; the cost of the trainee's salary during on-the-job training when he was still not productive or only marginally so, and finally the cost of supervisory salaries during the training period, which for the Navy Recruiting Command included salaries of Recruiters in Charge, Zone Supervisors, Chief Recruiters and Enlisted Programs Officers as well as fellow recruiters.²²

B. COSTS OF INEFFICIENT RECRUITER SELECTION

1. Separation Costs

For the Navy Recruiting Command, the aforementioned costs and an additional category, separation costs were compounded by the turnover rate among the enlisted recruiting force. Included in the separation cost category were costs of vacant recruiting positions, costs of reduced productivity from co-workers who tried to "take-up the slack" when billets

were gapped, loss of continuity and good will for the Navy Recruiting function in the community, actual dollars spent to transfer ineffective recruiters and their families, possible loss of the individual to the Navy through retirement/Fleet Reserve, loss of self-esteem and motivation for individuals who remained in the Navy and the resultant negative influence these people had on other Navy personnel at their next duty stations. An example of the type of negativism that disgruntled recruiters spread throughout the Navy is contained in Appendix H.

2. Turnover Problem

The turnover rate was represented in this research by the subgroup ALLDROP, persons who were transferred early from their recruiting assignments because they were unable to perform effectively in recruiting billets. Not only was NAVCRUITCOM having serious problems meeting recruiting goals, but its problems were being compounded by the continual turbulence represented by the turnover rate in the enlisted recruiting force. The level of capability of the command was critically dependent on the retention rate of personnel detailed to recruiting assignments. The greater the annual turnover rate, the greater must be the annual flow of new recruiters in order to maintain a given strength level. However, new recruiters have to be processed-in, trained, deployed to recruiting assignments and trained some more on-the-job, as discussed earlier. In addition, the recruiting turnovers have to be shipped to other Navy assignments or separated from the Navy earlier

than anticipated. All of these activities absorb resources, and add to the cost of obtaining a given level of recruiting capability.²³

In the study described in this research, fully 19.4 percent of the original sample group personnel represent turnover costs to the Navy Recruiting Command as they failed to complete their thirty-six month recruiting tour. These personnel who do not complete a full thirth-six month tour in recruiting represent significant costs to the Navy Recruiting Command, in particular, and to the Navy as a whole.

3. Unproductive Recruiters

Aside from the costs of recruiters who are transferred early, there are also costs associated with those who, although not bad enough to be transferred, fail to contribute their fair share to the Recruiting Command mission, as judged by the measure of affectiveness defined in this research. These personnel cost the Navy in terms of accessions lost because the billet they occupy is not generating the returns it should in terms of new personnel for the Navy. Recruiters in this category, subgroup ALLMEDIocre in the study, often cause extra administrative problems for their NRDs by attempting to retire or enter the Fleet Reserve prior to the end of their recruiting tour, they often evidence symptoms of the "Canons of the Twilight Tour" and, finally, they often damage the Navy's image in civilian communities because of their lack of enthusiasm for the Navy and, specifically, for their job as a Navy recruiter.

C. THE REAL COST

Specific estimates may be made for many of the categories of costs and a total turnover cost figure derived for the 245 sample group personnel who left their recruiting assignments early. A sample estimate of such costs is contained in Appendix H. However, only minor importance should be attached to this total, partly because of the speculative basis for its derivation, but mainly because it is believed that such a dollar figure would serve no real purpose because such a quantified dollar cost could be totally dominated by the financially unquantifiable cost of human resources misapplied.

The loss of self-esteem and motivation toward the Navy suffered by a senior petty officer who made the mistake of volunteering for recruiting duty cannot be adequately quantified. The associated costs which derive from such an individual leaving the Navy early with all of his technical and leadership skills, the loss of good will generated in the community in which this individual was working as a recruiter, the negative attitude he takes with him to a new activity for duty or while awaiting Fleet Reserve or retirement is incalculable and of a very long-lasting nature.

D. SUGGESTED IMPROVEMENTS

The study described in this research does not give the magic formula for selecting Navy recruiters but it does give some pretty strong indication of purely objective factors which seem to be related to success and failure in the recruiting assignment.

To summarize, successful recruiters in the sample group were most often in paygrades E5, and E6; had six to fourteen years of active service; GAM scores between 130 and 150; SAB scores between 65 and 80 and either a high school diploma or up to two years of college. No strong trends regarding rate were distinguishable among the ALLSUCCESS subgroup.

On the other hand, the ALLDROP subgroup, those who were transferred from their NRDs early, tended to come from deck and engineering, sea-going ratings, and have fifteen or more years of active service, they also tended to be in paygrades E7, E8, and E9. The study findings, explained in detail in Chapter Four indicated that more attention to rate and time on active duty in the process of selecting recruiters in the first place might be useful in helping to minimize the number who must be transferred early from their NRDs. Anecdotal evidence, such as the letter contained in Appendix I also suggests that more attention should be paid to placement of recruiters in billets for which they are motivationally suited. It appears careful attention to the attributes of incoming recruiter personnel to preclude assignment of senior personnel to recruiting billets in which their leadership experience cannot be used might be one way of reducing the turnover in the recruiting force.

Utilization of selection procedures which would incorporate the aforementioned parameters could, not only help reduce the direct costs which the Navy incurs in providing increasingly

expensive training for replacement for ineffective recruiters, but also lessen the indirect costs associated with the inefficient performance of poorly suited personnel in recruiting assignments. Turnover rates affect all three categories of organizational effectiveness: efficiency, productivity, and quality of work. Reducing the cost of continually training a new work force would make available additional scarce resources for the effective operation of other areas of Navy work.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The stated objective of this research was to identify success predictive criteria for selection of Navy recruiters which were:

- Based on a measure of effectiveness which was representative of the individual recruiter's efforts and contribution to accomplishment of the Navy Recruiting Command's mission to be used as a basis for examination of recruiter costs.
- Objective characteristics which are easily obtainable from readily available Navy enlisted personnel records to help explain the variance in recruiter performance.
- Practical to use in the recruiter selection process

At the outset it was noted that selection of Navy recruiters is, at best, only one of a variety of factors which impact on recruiter performance and that consideration must also be given to other factors such as, recruiter training, location (environment in which the recruiter operates), Navy Recruiting District management style and Navy and Recruiting Command policies, when developing any NAVCRUITCOM personnel policy. The relative impact of each of the aforementioned factors is not known with certainty, however, Arima's research²⁴ indicates that individual recruiter characteristics contribute approximately fifty percent to the variance in recruiter productivity. Assuming Arima's analysis is reasonably accurate, it would appear that recruiter selection should be a fairly important component in the whole recruiter productivity equation. The focus of this research was

directed toward the recruiter selection procedure with the intent of developing a profile of a successful recruiter comprised of a combination of objective personal characteristics which could be easily obtained from existing personnel records and which could be incorporated in the recruiter selection process with a minimum of turmoil.

The research analyzed six independent variables, paygrade, education, active duty, Navy enlisted entrance test scores, sales aptitude test scores and rate, for a sample group of 1262 active duty enlisted recruiters. These independent variables were regressed against a dependent variable designed to identify success, mediocrity and failure in the recruiting assignment. The measure of effectiveness which defined success was developed in terms of the NAVCRUITCOM Honor Roll and in terms of a combination of successful performance, i.e., completion of the full twenty-month test period and some level of Honor Roll performance; mediocre performance, simply remaining in the field for the entire test period; and failure on recruiting duty, being transferred early, before completion of the full test period.

The statistical analyses performed on the data explained, fourteen percent of the variance in the case of successful recruiters and twenty-one percent of the variance in the case of unsuccessful recruiters. The characteristics which contributed most to the explanation of the variance for the successful recruiters (ALLSUCCESS) were education, V3, with 5.5 percent, paygrade, V2, with approximately 3.5 percent

and enlisted entrance test scores with approximately 2.4 percent. For unsuccessful recruiters (ALLDROP) the best predictors were rate, V7, with 11.8 percent, active duty, V4 with 5 percent and enlisted entrance test score, V5 with about 3 percent.

The cost implications of improved recruiter selection were discussed with particular emphasis on the nonquantifiable costs of misapplied and demotivated human resources.

Specific recruiter-related cost categories, acquisition, learning and separation, were identified and the magnitude of expenses involved in each discussed. Particular attention was directed toward the separation cost category. Costs in this category apply to individuals in subgroup ALLDROP, i.e., turnovers, which represent not only the greatest quantifiable expense to the Navy Recruiting Command but also, and more importantly, the greatest nonquantifiable costs in terms of human resources.

The data on costs in Appendix H, while dealing with only a very small segment of the canvasser recruiter force for a relatively short period of time, indicate that the recruiter attrition problem has substantial financial implications. The almost three million dollar expense involved in the base pay, BAQ and PCS costs for the 245 ALLDROP personnel in the study represents considerable monetary waste and when the additional nonquantifiable human resource costs are added it is evident that the recruiter turnover problem is a very costly one.

Improved recruiter selection procedures should help reduce costs in all categories by providing the Navy Recruiting Command with individuals who are better suited for the assignment and thus stabilize the manning levels in the Recruiting Command by minimizing turnover in the Navy recruiting force.

B. RECOMMENDATIONS FOR FURTHER RESEARCH

While this research resulted in some reasonably good identification of factors which are indicative of success and failure, none of the statistical analyses identified the characteristics of the mediocre group (ALLMEDIocre), those recruiters who completed the full twenty-month test period but who failed to achieve the level of performance defined as indicative of success in this research. Recruiters in subgroup ALLMEDIocre may or may not be capable of achieving the level of productivity specified by the measure of effectiveness defined in this research, given the proper set of circumstances in the recruiting environment. At any rate, their ultimate performance may very well be more affected by factors which are unrelated to recruiter selection procedures. In this regard, it appears that additional research to determine the specific factors which impact most heavily on the performance of the ALLMEDIocre group could contribute to improved productivity within the Navy Recruiting Command. Such research should include analysis of the following factors:

- Recruiter Training
- Navy Recruiting District Management Style
- Location of Recruiting Assignment .
- Navy and Recruiting Command Policy

The aforementioned factors are important influencers of recruiter performance. Once the recruiter selection process has identified a likely candidate for recruiting duty that aspect of the recruiter performance equation is completed and the other four factors become the primary influencers.

The first of these remaining factors, recruiter training, is vitally important because even though the selection process indicates that the individual has the requisite capabilities to perform effectively as a Navy recruiter, for the majority of personnel it is their first experience with recruiting duty and they, therefore, must learn a whole new set of skills for the assignment. The difficulty involved in designing effective recruiter training programs stems primarily from two problems (1) there is no NAVCRUITCOM-wide definition of what a recruiter's job is and (2) with no definition of what the job is it follows that there are also no command-wide performance criteria by which performance can be judged. These problems then make it virtually impossible to identify incoming recruiter personnel who already possess the requisite skills to be effective recruiters and channel them either directly into recruiting jobs without the basic core recruiter training program or into more advanced recruiter training programs. Another difficulty posed by this lack of definition

of the recruiter's job is that it is very hard to design a training program for an undefined job.

The next factor which should be examined more closely is Navy Recruiting District management style. This factor differs in each of the forty-one Navy Recruiting Districts and may change radically within a single district when a change of command takes place. Little effort has been exerted to identify the characteristics of effective recruiting managers and to codify for use in the Recruiter Officer Management Orientation (ROMO) curriculum the management style(s) which produce the best results.

Similarly, research into the techniques used by various sales and marketing organizations has been sought and incorporated in the training programs only infrequently. Since most of the Navy Recruiting District Commanding Officers report for recruiting duty directly from operational billets and most have had little or no experience with sales and marketing before, the knowledge gained by their successful predecessors and from firms involved in similar types of endeavors in the civilian sector would be most helpful. Lacking such help regarding how best to "command" a Navy Recruiting District, many naval officers do just that, they attempt to run their new command as they would run a ship or an aircraft squadron. Unfortunately, this approach may not yield successful results because of the decentralized nature of the Recruiting District owing to the geographic location of stations away from the Recruiting District headquarters. The effect that

different styles of leadership have on recruiting performance is yet another area which needs further research.

Assignment to location is the third factor which has considerable impact on recruiting performance. Arima stated in his 1976 research report that,

"A serious problem in allocating recruiting resources and in evaluating the performance of recruiting elements is the difficulty in measuring or predicting the recruiting potential of a particular area."²⁵

The whole question of market analysis is one in which the Navy Recruiting Command has been vitally interested but which still remains largely unexplained and in need of additional research.

The final factor to which additional research effort should be directed is the question of policy both from the NAVCRUITCOM level and from more senior levels. The following excerpt is a sample of the types of constraints under which the enlisted Navy recruiter must operate:

"The enlisted constraints within which the system had to work during FY 74 will be examined first, since they are more pervasive than quotas and since several of them apply indiscriminately to all quota elements. The important constraints were:

1. Eligibility for enlistment was defined.
2. School eligible (SE) and the complement, non-school eligible (NSE), were defined.
3. No less than 80% of all accessions had to be SE. (85% after December 1973.)
4. The high school graduate (HSG) goal was 80% (long-range goal, 90%).
5. The male minority goal was 18% of all accessions (black, 12%; others, 6%).
6. The minority SE goal was the same as 3 above.
7. There was no restriction on the number of mental group IV personnel that could be accessioned, provided monthly SE goals (85%) were attained.

8. The following guidance was given with respect to CACHE:
 - a. 100% of the chargeable (first enlistment) monthly recruit goal could be put in CACHE.
 - b. NSE could be CACHED up to 10% of monthly input up to 180 days.
 - c. Non-HSG (NHSG) could be recruited for the OCCSPEC program provided their OFE score was equal to or greater than 72. A maximum of 25% of the monthly quota of OCCSPEC could be NHSG in CACHE.

Other specific guidance or constraints were provided pertaining to specific programs and to special categories of applicants, such as women and persons with different categories of prior service. The primary constraints, however, were those pertaining to SEs, HSGs, and minorities. The consequence of the concatenation of these three constraints is the 12-cell, forced distribution of all new accessions (called chargeables, Quebec, or just "Q") shown in Table 14. The discussion of goals (quotas) in the next section will show how complex they are in their own right, but the most difficult control problem is to make goal attainment for the entire month fit the distribution shown in Table 14. Small wonder that the term, "fine tuning," came into such prominence. Superbly fine tuning, indeed, is needed to come close to the distribution while trying to obtain quota."

Table 14

Distribution of New Enlisted Accessions Required By
Primary Constraints

Ethnic Group	School Eligible		Nonschool Eligible		Total
	HSG ^a	NHSG ^a	HSG	NHSG	
Majority	55.8 ^b	13.9	9.8	2.5	82.0
Black minority	8.2	2.0	1.4	.4	12.0
Other minority	4.0	1.0	.7	.2	6.0
Total	68.1	16.9	11.9	3.1	100.00

^aHigh school graduate, non-high school graduate.

^bIn percent: ²⁶

Not only are these constraints numerous and often difficult to understand but they are also inconstant. It is not

unusual for field recruiters to receive detailed changes to basic enlistment criteria and recruiting program qualifications on a daily basis. Such instability in the rules under which they are operating causes confusion for the recruiter and makes it that much harder for him to do his job. The whole area of recruiting policy is also in need of further research.

Increased knowledge of the impact of various factors on recruiter performance would make it possible to devise more effective training programs and help to reduce costs due to recruiter turnover. Although the foregoing discussion has provided only a brief explanation of the other factors which impact on recruiter effectiveness, it should be clear that research efforts which help clarify how these factors affect the recruiter would contribute to the goal of providing for the most efficient and effective recruiting force possible.

Chapter 11

RECRUITING DUTY

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RECRUITING DUTY

11.0 GENERAL INFORMATION

The Commander, Navy Recruiting Command employs the services of many enlisted ratings in the direct procurement of recruits. Enlisted personnel in paygrades E-5 and above (E-4 and above for female enlisted personnel) are assigned mainly to recruiting districts located within the continental United States. Most of these personnel are redistributed to about 1200 branch and substations located in cities and towns throughout the continental United States. (There are also a limited number of assignments available in Alaska, Hawaii, Guam, Puerto Rico, the Philippines and Europe.)

11.01 Qualifications Required for Assignment to Recruiting Duty

While the highest standards of personal conduct and characteristics are required of all members of the naval service, it is especially important that personnel assigned to duty involving Navy Recruiting exhibit these high standards, inasmuch as the Navy member is constantly under surveillance by the citizens of the community in which assigned. Accordingly conscientious efforts are necessary to examine and evaluate each individual's potential as a representative of the Navy and for assignment to independent duty.

11.011 COMMANDING OFFICER'S RESPONSIBILITY IN DETERMINING INDIVIDUAL QUALIFICATIONS. Prior to recommending individuals for recruiting duty, commanding officers will evaluate members in accordance with the requirements listed below. (If an enlisted member or officer who has previously served on recruiting duty is available, their assistance in conducting the Commanding Officer's Interview is recommended.)

A negative response to any of the following factors is considered disqualifying and accordingly the individual should not be recommended nor transferred to recruiting duty. If an individual has been issued orders and subsequently becomes disqualified for recruiting duty, transfer will not be effected. CHNAVPERs and COMNAVCRUITCOM will be notified immediately by message.

11.0111 Does the individual's past performance as reflected in performance evaluations over the past three to four years warrant recommending him for recruiting duty?

11.0112 Does the individual present a neat and well groomed appearance, in uniform and civilian clothes, and normal posture? (Particular attention should be paid to meeting the requirements of BUMEDMAN with regard to height versus weight standards. Obesity or overweight conditions which are detrimental to appearance should be considered disqualifying).

11.0113 Is member free from financial difficulty and does member demonstrate a conscientious effort to meet all financial obligations?

11.0114 Does the individual have a clear record and demonstrate sobriety insofar as the commanding officer can determine by inspection of current service record and interview? (A clear record is interpreted as one which does not contain official entries indicating a conviction by court-martial or non-judicial punishment awarded at Captain's Mast during the past 36 months.)

11.0115 Does the individual hold a valid state motor vehicle operator's license? (Every effort should be made to have applicant issued a government motor vehicle operator's license, if qualified, prior to transfer to recruiting duty.)

11.0116 If married, are all members of the individual's family free from any health or other problems requiring special treatment or facilities which would not normally be available to military personnel on independent duty and/or which might pose an undue hardship if assigned to such duty?

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11.0117 Has member undergone a Type II Dental Examination, conducted by a Dental Officer, within the past 6 months and has an entry been made on the Dental Standard Form 63 to the effect that the member does not require dental treatment or dental prosthetic restorations?

11.0118 Are the individual's character traits, sense of humor and forcefulness, as determined by observation of their habits and daily life, considered above average?

11.0119 Does the individual give positive evidence of being completely convinced of the advantages of a Navy career?

11.01110 Does the individual appear to have the ability to meet the public and have the personal qualifications for independent duty?

11.01111 Is the individual persuasive in conveying ideas and information both in personal contact and in writing?

11.01112 Does the individual have a cooperative attitude as indicated by helping others?

11.01113 Does the individual demonstrate initiative and ability to successfully present and convince others to accept his/her ideas?

11.01114 Has the individual the ability to converse intelligently on the Navy, general subjects, and current events?

11.01115 Has the individual demonstrated ability to deal successfully with problems involving ideas and people utilizing his own initiative?

11.01116 Is the individual without a speech impediment, does the member speak clearly, and present a smart military appearance?

11.01117 Is the individual a petty officer second class or above? (Third class or above for female petty officers.)

* 11.012 SALES APTITUDE BATTERY. All personnel who submit a request for canvasser recruiter duty to CHNAVPERS, and are recommended by their commanding officers, will be provided with a "Sales Aptitude Battery." This battery is similar to those utilized by civilian sales corporations. The battery is administered locally and is provided to the parent command, complete with instructions, by Officer in Charge, Recruiting Officer Management Orientation Detachment, Naval Air Station, Pensacola, Florida 32508. The results of this battery are important in determining individual suitability as Recruiter Canvassers. It is essential that the battery be administered promptly and returned to the above address.

* 11.013 RETAKE OF SALES APTITUDE BATTERY. Requests for retake of the Sales Aptitude Battery are not normally approved but may be requested by an applicant where sufficient justification is given. Requests for retake of the Sales Aptitude Battery are to be forwarded to the Chief of Naval Personnel (Pers-5021) via the applicants' commanding officer and the Commander, Navy Recruiting Command (Code 11).

11.02 Submission of Requests for Assignment to Recruiting Duty

CHNAVPERS desires requests for assignment to recruiting duty from those personnel who meet the qualifications prescribed in this chapter.

- Application is limited to petty officers second class and above. (Third class or above for female petty officers.)

- Personnel in all ratings may apply for assignment to recruiting duty. However, if selected, male personnel in the YN, SK, PN, DK, and JO ratings will normally be assigned recruiter support billets only. Female personnel of all ratings may apply for recruiter canvasser duty.

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* - In addition to submitting the Enlisted Duty Preference Form (1306/63), an Enlisted Transfer and Special Duty Request (NAVPERS 1306/7) should be submitted to the Chief of Naval Personnel (Pers-5021), via the appropriate chain of command. This request should include a statement concerning or summary of the completion of the CO's interview as required by article 11.01 above. Requests shall not be forwarded prior to completion of the CO's interview. Choices of Navy Recruiting Districts or general geographic areas should be included on both the NAVPERS 1306/63 and NAVPERS 1306/7. Subsequent assignment to a recruiting substation within that district is made by the recruiting district commanding officer.

- Applications should arrive at BUPERS approximately six months prior to PRD.

11.03 ASSIGNMENT TO RECRUITING DUTY

11.031 SUPPORT PERSONNEL. Support personnel (usually YN, SK, PN, DK, and JO) are ordered for duty "in a recruiting support billet".

* 11.032 ORIENTATION CLASSES. Personnel ordered via the appropriate Enlisted Navy Recruiting Orientation (ENRO) classes located at San Diego, California and Orlando, Florida, TEMDUINS for five weeks and upon completion, transfer to a Navy Recruiting District for TEMDU of about one week.

11.033 DELAY IN REPORTING. Personnel ordered to recruiting duty are normally authorized thirty days delay in reporting. However, the transfer directive for recruiter canvassers may indicate a reporting date which could limit the amount of authorized leave which may be taken prior to reporting or after graduating from the school. In granting leave, specific instructions shall be typed in the supplemental instructions of the Standard Transfer Order (STO), and the command will ensure these instructions are understood by the member concerned.

11.034 TOUR COMMENCEMENT DATE. In computing the tour of recruiting duty, the tour shall commence as of the date enlisted personnel report to the Recruiting District (Parent Command) even though they report For Further Assignment (FFA) and are ultimately assigned to a recruiting station. Overseas tours commence upon departing CONUS.

* 11.035 TOUR LENGTHS. The CONUS tour for personnel assigned to recruiting duty is 36 months or the normal shore tour length prescribed in Chart 3-A, whichever is longer except in the following cases:

- Personnel who are comptoured from shore duty into recruiting duty will normally not be assigned a 36 month if doing so would create an excessively long shore tour. (Minimum tour would be 24 months).

- Personnel who are reenlisting (returning to the Navy) in critically manned rating and simultaneously requesting recruiting duty will be considered on a case-by-case basis. However, a six year enlistment may be required and if accepted, could result in a 24 month recruiting tour to be followed by a 48 month sea tour.

- Assignment of exceptionally qualified individuals who for some other reason are only available to recruiting for some shorter period of time, e.g., limited duty (L-5), twilight tour guarantee of other cases identified by CHNAVPERS.

11.04 REQUIREMENTS TO BE MET PRIOR TO TRANSFER

Commands shall ensure that the following requirements are met prior to transfer:

11.041 OBLIGATED SERVICE REQUIREMENTS. Personnel selected for assignment to recruiting duty in CONUS must have 36 months active obligated service computed from month of transfer. Personnel assigned overseas must have the obligated service required for the area tour. (See Article 3.113).

11.0411 Personnel may reenlist or extend their enlistments, if qualified in all respects, in order to obtain the required active obligated service. Instructions concerning reenlistment and voluntary extensions of enlistment are contained in BUPERSMAN 1040300 and 1050150.

11.0412 When an Agreement to Extend Enlistment (NAVPERS 1070/621) or an Assignment to and Extension of Active Duty (NAVPERS 1070/622) is executed to attain active obligated service required, the following entry shall be made as NARRATIVE REASON:

"Assignment to shore duty, (Authority (cite applicable authority, e.g., BUPERS TC).
I understand that upon assignment to recruiting duty, this extension becomes binding
and thereafter may not be cancelled except as provided in BUPERSMAN 1050150."

11.0413 When an individual's service record contains agreements to extend enlistment which comprise a total period of 48 months, or if an individual would suffer financial loss in the attempt to comply with obligated service requirements, such individuals may sign a page 13 entry in the service record signifying an intent to reenlist for the purpose of completing a normal tour of recruiting duty at such time as no monetary loss would result. (A signed copy of this page 13 shall be forwarded to CHNAVPERS.)

11.042 NON-OBLIGOR. If personnel do not desire to obligate themselves as required, retain member on board and submit message notification to CHNAVPERS (Pers-5021) and information copy to COMNAVCGRUITCOM who will then issue cancellation orders.

11.043 FIFTEEN OR MORE YEARS ACTIVE SERVICE. Members with fifteen or more years active service ordered to duty as a recruiter will be required to sign a page 13 entry indicating their understanding that transfer to the Fleet Reserve will not be authorized prior to completion of a minimum of 36 months. (Copy to be forwarded to BUPERS.)

"In consideration of my being assigned to recruiting duty, I hereby agree to remain on active duty for a period of 36 months from date of reporting for such duty."

11.044 DENTAL EXAMINATION. Transfer may not be affected until a naval dental officer has conducted a Type II Dental Examination, and an entry made on the Dental Standard Form 63 to the effect that the member does not require dental treatment or dental prosthetic restorations.

11.045 UNIFORMS AND ACCESSORIES. Members assigned to Navy recruiting duty may be eligible for Special or Supplemental Clothing Monetary Allowance (SSCMA) in accordance with DODPM, DLT 3-5-7. Care should be exercised to ensure whether member is or will be entitled to SSCMA, then advised to consider obtaining extra uniforms and accessories as it may be difficult, and in some areas impracticable, to purchase new items while on independent duty.

11.046 VERIFICATION OF SERVICE RECORD. It is imperative the pre-transfer verification of service record be accomplished in accordance with BUPERSMAN 5030120, as many of the recruiting activities are in remote locations with few administrative facilities available.

11.047 COMPLIANCE WITH ORDERS. Transferring command is enjoined to pay particular attention to ensuring the STO orders are written exactly as indicated by CHNAVPERS. In the past, cases have occurred where intermediate stations were not included in the STO or an erroneous ultimate duty station recorded which produced financial hardship on personnel so ordered.

11.05 Service Record Entry - Signed-by Commanding Officer

When qualified in accordance with this chapter, the following entry shall be made on the administrative remarks, page 13 - and should be signed by the Commanding Officer indicating SSN, Rank/Designation.

"Commanding Officer's interview required by ENLTRANSMAN, Chapter 11, held on "26 June 1950". "PNC DALE" considered qualified LAW ENLTRANSMAN, Chapter 11, for assignment/transfer to recruiting duty".

11.06 Reassignment of Members Unsuitable for Recruiting Duty

Screening procedures for the selection of members for recruiting duty are designed in an attempt to select only the highest caliber individuals. In addition to the screening noted above, further evaluation is made at the recruiter's school. It is realized, however, that despite the most stringent screening process, isolated cases of assignments of individuals who are unsuitable for recruiting duty may occur. Members considered unsuitable for duty as recruiters fall into one of the two distinct categories indicated below:

- Those members considered to be unsuitable for continued duty through no fault of their own (e.g., a physical defect or speech impediment, lack of confidence and/or ability to project in front of audiences or other qualities which would hamper effective recruiting).

- Those members considered unsuitable for continued duty as a result of their own actions (e.g., misconduct, deliberate lack of interest in recruiting, poor attitude, or other similar reasons.

11.061 RECOMMENDATION FOR TRANSFER DUE TO UNSUITABILITY. When a commanding officer considers an individual to be unsuitable for continued recruiting duty a recommendation for removal from such duty shall be submitted to CHNAVPERS (Pers-5021) via the area commander and Commander, Navy Recruiting Command. Utilize Report Symbol BUPERS 1306-167.

11.0611 Each request must include the following information:

- Name, rate, social security number, PNEC and SNEC.
- Expiration of active obligated service.
- * - Date reported to current tour of duty and PRD.
- Number of and location of dependents and household effects.
- * - Specific and detailed facts as to the reason for recommending a fault/no-fault transfer. Comments shall be limited only to those events or incidents which occurred while assigned as a recruiter and which precipitated the transfer request. Ensure that all facts are documented to avoid innuendo; ensure that periodic performance evaluations reflect conduct and performance as being reported (if appropriate, submit a special performance evaluation).
- * - If prior command screening should have revealed shortcomings, include the name, SSN of the commanding officer who forwarded recommendation for recruiting duty.
- * - Indicate whether district counseling revealed weaknesses and indicate whether advice, assistance and training were made available to overcome weaknesses.
- In the case of individuals determined to be unsuitable through no fault of their own, include comment concerning the individual's ability to perform in other than a recruiting capacity (e.g., professional knowledge, ability, initiative, etc.). Commanding officers should ensure that individuals who lack an inherent ability to communicate but are otherwise highly capable are not demoralized or led to believe that nomination for unsuitability through no fault of their own will constitute a stigma which will affect future advancement.
- When the reason for reassignment is a result of the individual's own action, any disciplinary action taken or pending must be reported.
- When a member is considered unsuitable for continued duty as a result of his/her own actions a statement of rebuttal from the individual concerned is required. Should the individual desire not to make a statement, member shall so indicate in writing.
- The individual's duty preferences, in the event transfer is directed.

11.062 CHNAVPERS ACTION. Reassignment as a result of unsuitability for any reason shall be at the discretion of CHNAVPERS. Factors which will be considered are:

- The availability of billets for member's rate within his present activity or at other activities within the corporate limits.
- The amount of time remaining on member's current sea/shore tour.

11.0621 Members determined to be unsuitable through no fault of their own shall be reassigned as follows:

- Members who have served to within six months of completing a normal tour of shore duty shall be reassigned to sea duty.
- All other members shall be reassigned to another shore station for completion of tour.

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11.0622 Members determined to be unsuitable as a result of their own actions shall be reassigned to duty as determined by CHNAVPERS.

11.07 Reassignment of Member During Enlisted Navy Recruiting Orientation Course (

Members attending ENRO Training considered not suited for recruiting duty for any reasons, such as those specified in Article 11.06 above, shall be recommended by message to CHNAVPERS (Pers-5021) for a modification of orders. Message must contain full justification for requested modification of orders. Utilize Report Symbol 1306-166.

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CHAPTER 11

RECRUITING DUTY

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RECRUITING DUTY

1.0 GENERAL INFORMATION

Experience has shown that only top performing petty officers who are motivated to sell the Navy to others can succeed in the demanding duty of recruiting. Recruiters are essentially on independent duty, and they are responsible for achieving demanding accession goals. They have a myriad of accession programs in which they must be knowledgeable. They require an ability to be at ease in discussing Navy programs with both prospective applicants and before groups. They develop extensive community relations, and they are frequently the only image of the Navy provided to a community. They are located in areas remote from military installations and their associated support activities. Finally, they work hard, and their success requires an exceptional dedication to duty, and a strong belief in the advantages of a Navy career.

11.01 ASSIGNMENT TO RECRUITING DUTY

11.011 RECRUITING PERSONNEL. The Commander, Navy Recruiting Command employs the services of most enlisted ratings in the direct procurement of recruits. Enlisted personnel in pay grades E-5 and above (E-4 and above for female and minority personnel) are assigned to one of the 43 recruiting districts located in the United States. The recruiting districts assign these personnel to over 1200 recruiting stations located in cities and towns throughout the United States. There are also a limited number of recruiting billets in Guam, the Philippines, Puerto Rico, Virgin Islands, and Europe. Figure 11A is provided to display the geographic areas for which each recruiting area and district has responsibility.

11.012 SUPPORT PERSONNEL. Support personnel are ordered for duty to a "recruiting support billet". These ratings include YN, PN, SK, DK, and JO.

11.013 ULTIMATE DUTY STATION. Upon receipt of CHNAVPERS orders assigning an individual to recruiting duty, the Navy recruiting district will provide the transferring command the ultimate duty station (ULTDUSTA) assignment (normally a recruiting station) to include in the individual's STO prior to transfer. The individual must keep in mind that the decision by the district Commanding Officer on ULTDUSTA must be based ultimately on where recruiters are needed at the time of the individual's arrival at the district. A guaranteed assignment to a requested location is not implied.

11.014 TOUR LENGTHS. The CONUS tour for personnel assigned to recruiting duty shall be 36 months or the normal shore tour length prescribed in Chapter 3, Chart 3-A, whichever is longer. Tours for personnel assigned overseas will be in accordance with the current established tour for the area.

11.015 TOUR COMMENCEMENT DATE. In computing the tour of recruiting duty, the tour shall commence as of the date enlisted personnel report to the recruiting district (parent command) even though they report for further assignment (FFA) and are ultimately assigned to a recruiting station. Overseas tours commence upon departing CONUS.

11.016 ORIENTATION CLASSES. Recruiting personnel are ordered via the appropriate Enlisted Navy Recruiting Orientation (ENRO) classes located at San Diego, California and Orlando, Florida, TEMDUINS for five weeks and upon completion, transfer to a Navy recruiting district for TEMDU of about one week.

11.017 DELAY IN REPORTING. Personnel ordered to recruiting duty are normally authorized 30 days delay in reporting. However, the transfer directive for recruiters may indicate

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a reporting date which could limit the amount of authorized leave which may be taken prior to reporting or after graduating from ENRO. In granting leave, specific instructions shall be typed in the supplemental instructions of the standard transfer order (STO), and the command will ensure these instructions are understood by the member concerned.

11.02 SUBMISSION OF REQUESTS FOR ASSIGNMENT TO RECRUITING DUTY

11.021 QUALIFICATIONS. CHNAVPERS desires and encourages requests for assignment to recruiting duty from those personnel who meet the following qualifications:

a. Application is limited to petty officers second class and above. (Third class or above for female and minority personnel).

b. Personnel in all ratings may apply for assignment to recruiting duty. However, if selected, personnel in the YN, SK, PN, DK and JO ratings will normally be assigned recruiter support billets only.

11.022 REQUESTS. An Enlisted Transfer and Special Duty request (NAVPERS 1306/7) should be submitted to CHNAVPERS (Pers-5021) via the appropriate chain of command. The commanding officer's endorsement to this request is to include a statement concerning the commanding officer's personal interview and evaluation of the individual as required by Article 11.03 following, with the resultant recommendation as to whether the individual is qualified for recruiting duty.

11.0221 Individual requests for recruiting duty shall not be forwarded prior to completion of a commanding officer's interview. When requests are received which do not state that the individual was screened by the commanding officer and found qualified in accordance with this chapter (see Article 11.03) then an administrative delay in the processing of the individual's request will be required to obtain the commanding officer's recommendation by other means.

11.0222 Requests for recruiting duty should arrive at BUPERS approximately six months prior to PRD.

11.0223 Requests should indicate the Navy recruiting area desired, or list three Navy recruiting districts desired.

11.0224 In addition to the 1306/7 request, individuals desiring recruiting duty should submit an Enlisted Duty Preference Form (1306/63) which reflects the area or districts at which recruiting duty is desired.

11.03 COMMANDING OFFICER SCREENING OF PROSPECTIVE RECRUITERS

Personnel assigned as canvasser recruiters are transferred TEMDUINS via the Enlisted Navy Recruiter Orientation Detachment (ENRO) Orlando or San Diego, for five weeks of orientation. During this period, the prospective recruiters are evaluated by experienced recruiters in accordance with the criteria in this Chapter. If disqualifying traits are discovered these personnel must be ordered to another type duty with resulting personal disappointment and in many cases family upheaval. Generally, thorough screening by the transferring Command would have prevented such misassignment. The following are the most frequent reasons for a prospective recruiter's disqualification at ENRO. They are provided to assist Commanding Officers in screening prospective recruiters (the percent of those dropped for the reason stated is in parentheses):

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Lacks salesmanship ability (38%);
 Unable to communicate and/or relate with a prospect or a group (24%);
 Lacks motivation to be a recruiter (16%);
 Personal problems: marital, financial, etc. (11%);
 Medical problems: overweight, history of abnormal blood pressure, heart associated or stress related problems, on medication for tension related psychosomatic problems (7%)
 Others: appearance, no driver's license, disciplinary (45%).

A) 11.031 COMMANDING OFFICER'S RESPONSIBILITY IN DETERMINING QUALIFICATIONS PRIOR TO RECOMMENDING INDIVIDUALS FOR RECRUITING DUTY

Commanding officers will personally interview and evaluate members in accordance with the requirements listed in Figure 11B. (If an enlisted member or officer who has previously served successfully on recruiting duty can be made available, their assistance in conducting the commanding officer's interview is recommended).

If after the interview and evaluation of the individual against each of the nine major areas of concern (see Figure 11B), the commanding officer considers the individual not qualified in any one of the major areas the individual should not be recommended nor transferred to recruiting duty. (It is not intended that individuals must be found not qualified if their evaluation, with regard to one of their questions listed under the nine areas, is unsatisfactory; but rather the intent is for the commanding officer to consider the individual against the answers to all of the questions under each of the nine major areas and then determine an overall evaluation of the individual for each area. An unsatisfactory evaluation in one major area is disqualifying.)

11.032 COMMANDING OFFICER SIGNATURE OF SERVICE RECORD ENTRY

If the individual is qualified for recruiting duty, based on the screening list in Figure 11B, then the following entry shall be made on the administrative remarks, page 13, and the entry will be signed by the commanding officer:

"Commanding Officer's interview required by TRANSMAN, Chapter 11, held on (date). (Rate and name) considered qualified IAW TRANSMAN, Chapter 11 for assignment/transfer to recruiting duty."

11.04 COMMAND REQUIREMENTS TO BE MET PRIOR TO TRANSFERRING PROSPECTIVE RECRUITERS

Commands shall ensure that the following requirements are met prior to transferring a prospective recruiter. Figure 11C provides a check list, which can be reproduced locally to assist the command in ensuring completion of all of the following requirements.

11.041 COMMANDING OFFICER PAGE 13 ENTRY. The page 13 entry certifying the individual's qualification for recruiting duty, required by Article 11.032, must be signed by the Commanding Officer.

R) 11.042 OBLIGATED SERVICE REQUIREMENTS. Personnel selected for assignment to recruiting duty in CONUS must have 36 months active obligated service computed from month of reporting to the recruiting district. Personnel assigned overseas must have the obligated service required for the area tour. (See TRANSMAN Article 3.113 and 4.021).

11.0421 Personnel may reenlist or extend their enlistments, if qualified in all respects, in order to obtain the required active obligated service. Instructions concerning

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reenlistment and voluntary extensions of enlistment are contained in BUPERSMAN 1040300 and 1050150.

11.0422 When an Agreement to Extend Enlistment (NAVPERS 1070/621) or an Assignment to an Extension of Active Duty (NAVPERS 1070/622) is executed to attain active obligated service required, the following entry shall be made as NARRATIVE REASON:

"Assignment to shore duty, (Authority: cite applicable authority e.g., BUPERS IC). I understand that upon assignment to recruiting duty, this extension becomes binding and thereafter may not be cancelled except as provided in BUPERSMAN 1050150."

11.0423 When an individual's service record contains agreements to extend enlistment which comprise a total period of 48 months, or if an individual would suffer financial loss in the attempt to comply with obligated service requirements, such individuals may sign a page 13 entry in the service record signifying an intent to reenlist for the purpose of completing a normal tour of recruiting duty at such time as no monetary loss would result. (A signed copy of this page 13 shall be forwarded to CHNAVPERS).

11.043 NON-OBLIGOR. If personnel do not desire to obligate themselves as required, retain member on board and submit message notification to CHNAVPERS (Pers-5021) and information copy to COMNAVCRUITCOM. CHNAVPERS (Pers-5021) will then issue cancellation orders.

11.044 SEVENTEEN OR MORE YEARS ACTIVE SERVICE. Members with 17 or more years active service ordered to recruiting duty will be required to sign a page 13 entry indicating their understanding that transfer to the Fleet Reserve will not be authorized prior to completion of a minimum of 36 months. (Copy to be forwarded to BUPERS).

"In consideration of my being assigned to recruiting duty, I hereby agree to remain on active duty for a period of 36 months from date of reporting for such duty."

A) 11.045 MEDICAL RECORD SCREEN. Recruiters work under conditions of stress associated with their recruiting productivity. They are susceptible to coronary and other stress related problems. For this reason, it is necessary that individuals who have a history of stress related medical problems not be assigned to recruiting duty. The individual's health record is to be screened by a medical officer following the guidance of MANMED Article 15-50(1) or (2) as appropriate, and an entry made on SF 600.

11.046 DENTAL EXAMINATION. Transfer may not be effected until a naval dental officer has conducted a TYPE II Dental Examination, and an entry made on the Dental Standard Form 603 to the effect that the member does not require dental treatment or dental prosthetic restorations.

R) 11.047 UNIFORMS AND ACCESSORIES. Members assigned as recruiters may be eligible for Special or Supplemental Clothing Monetary Allowance (SSCMA) in accordance with DODPM, A) DLT 3-5-7. The allowance is payable only during enlisted Navy recruiter orientation. Care should be exercised to determine whether or not member is or will be entitled to SSCMA, and advised to consider obtaining extra uniforms and accessories, as it may be difficult, and in some areas impracticable, to purchase new items while on independent duty.

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11.048 VERIFICATION OF SERVICE RECORD. It is imperative that the pre-transfer verification of service record be accomplished in accordance with BUPERSMAN 5030120, as many of the recruiting activities are in remote locations with few administrative facilities available.

11.049 ULTIMATE DUTY STATION. If the transferring command has not received an ULTDUSTA assignment from the receiving Navy Recruiting District, it should be requested prior to transfer of the individual. (See Article 11.013).

11.0410 COMPLIANCE WITH ORDERS. Transferring command is enjoined to pay particular attention to ensuring the STU orders are written exactly as indicated by CHNAVPERS, as supplemented by ULTDUSTA information from the Navy Recruiting District. Too frequently cases have occurred where intermediate stations were not included in the STU or an erroneous ultimate duty station recorded, which produced financial hardship on personnel so ordered.

11.0411 LOSS OF QUALIFICATION. If an individual has been issued orders to recruiting duty and subsequently becomes disqualified for such duty (See Article 11.031), then the transfer will not be effected. CHNAVPERS and COMNAVCRUITCOM will be notified by message immediately.

11.05 REASSIGNMENT OF MEMBERS UNSUITED FOR RECRUITING DUTY

Screening procedures for the selection of members for recruiting duty are designed to ensure selection of only high caliber individuals. In addition to the screening noted above, further evaluation is made at the ENRO. It is realized that in spite of a most stringent screening process at the transferring command, infrequent isolated cases of assigning individuals unsuited for recruiting may occur. Members considered unsuitable for duty as recruiters fall into one of the two following distinct categories:

- Those members considered to be unsuitable for continued duty through no fault of their own (e.g., lack of salesmanship ability, inability to relate/communicate with prospects and groups, severe personal or medical problems, or other characteristics which would hamper effective recruiting).

- Those members considered unsuitable for continued duty as a result of their own actions (e.g., misconduct, lack of motivation, poor attitude, or other similar reasons).

11.051 REASSIGNMENT OF MEMBER DURING ENLISTED NAVY RECRUITING ORIENTATION COURSE. Members attending ENRO who are considered not suited for recruiting duty shall be recommended for a modification of orders out of recruiting duty. The recommendation shall be submitted by message to COMNAVCRUITCOM, information copy to CHNAVPERS, and the NAVCRUITAREA and NAVCRUITDIST concerned.

- The message will contain the following information:

- Report Symbol 1306/166
- Full name, rate
- SSN, PNEC/SNEC, EAOS
- District to which originally destined
- Brief justification for the requested modification.

Coincident with the message notification, the ENRO will forward a letter request to COMNAVCRUITCOM providing detailed justification as to the need to transfer the

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individual from recruiting duty. COMNAVCRUITCOM will advise CHNAVPERS as to approval of the request, and the individual will be reassigned by CHNAVPERS.

11.052 RECOMMENDATION FOR TRANSFER DUE TO UNSUITABILITY. When a district commanding officer considers an individual to be unsuitable for continued recruiting duty a recommendation for removal from such duty shall be submitted to CHNAVPERS (Pers-5021) via the area commander and Commander, Navy Recruiting Command. Utilize Report Symbol BUPERS 1306-167. Each request must include the following information:

- Name, rate, social security number, PNEC and SNEC.
- Expiration of active obligated service.
- Date reported to current tour of recruiting duty and PRD.
- ENRO from which graduated.
- Number of and location of dependents and household effects.
- Specific and detailed facts as to the reason for recommending a fault/no-fault transfer. Comments shall be limited only to those events or incidents which occurred while assigned as a recruiter and which precipitated the transfer request. Ensure that all facts are documented to avoid innuendo.
- If prior command screening should have revealed shortcomings, include the name, SSN, and command of the commanding officer who forwarded recommendation for recruiting duty.
- Indicate whether district counseling revealed weaknesses and indicate whether advice, assistance and training were made available to overcome weaknesses.
- In the case of individuals determined to be unsuitable through no fault of their own, include comment concerning the individual's ability to perform in other than a recruiting capacity (e.g., professional knowledge, ability, initiative). A statement of rebuttal is not required from the individual involved in a no-fault transfer, however, it may be included if the individual desires to do so.
- Commanding officers shall ensure that individuals who are unable to recruit due to no fault of their own, but who are otherwise highly capable, are not demoralized or led to believe that recommendation for a no-fault unsuitability transfer will constitute a stigma which will affect future advancement. This policy is applicable during preparation of special or transfer evaluation of those who receive a no-fault unsuitability reassignment.
- Periodic performance evaluations on those receiving fault unsuitability transfers shall reflect conduct and performance as reported in the fault transfer recommendation. If appropriate a special performance evaluation should be prepared.
- When the reason for reassignment is a result of the individual's own fault any disciplinary action taken or pending must be reported.
- When a member is considered unsuitable for continued duty as a result of his/her own actions (fault transfer) a statement of rebuttal from the individual concerned is required. Should the individual not desire to make a statement, member shall so indicate in writing.

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- The individual's duty preferences.

11.053 CHNAVPERs ACTION. Reassignment as a result of unsuitability for any reason shall be at the discretion of CHNAVPERs. Factors which will be considered are:

- The availability of billets for member's rating within his/her present activity or at other activities within the corporate limits.

- The amount of time remaining on member's current sea/shore tour.

11.0531 Members determined to be unsuitable through no fault of their own shall be reassigned as follows:

- Members who have served to within six months of completing a normal tour of shore duty shall be reassigned to sea duty.

- All other members shall be reassigned to another shore activity for completion of tour.

11.0532 Members determined to be unsuitable as a result of their own fault shall be reassigned to duty as determined by CHNAVPERs.

NAVY RECRUITING AREAS AND DISTRICTS



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Figure 11A

RECOMMENDED SCREENING LIST FOR DETERMINING QUALIFICATIONS FOR RECRUITING DUTY

	YES	NO
A. SALESMANSHIP		
1. Does the individual have an outgoing, friendly personality? (Not a quiet, shy, introvert)	[]	[]
2. Is the individual persuasive in conveying ideas and information in personal discussions?	[]	[]
3. Does the individual demonstrate initiative and an ability to successfully present and convince others to accept ideas?	[]	[]
4. Does the individual appear to have the ability to meet the public?	[]	[]
5. Does the individual appear to have the ability to show poise, calmness and good humor when under stress?	[]	[]
6. Is the individual self confident?	[]	[]
B. COMMUNICATION ABILITY		
1. Does the individual speak clearly, without a speech impediment or marked accent which prevents effective communication in the English Language.	[]	[]
2. Does the individual speak logically and convincingly?	[]	[]
3. Has the individual an ability to converse effectively on the Navy, general subjects and current events?	[]	[]
4. Does the individual appear to have the ability to effectively address a group?	[]	[]
C. PERFORMANCE		
1. Does the individual's past performance as reflected in performance evaluations over the past three years support recommendation for recruiting duty?	[]	[]
2. Is the individual's record clear of court-martial or commanding officer's non-judicial punishment for the past three years?	[]	[]
3. Does the individual's record reflect an ability to discharge responsibilities on an independent duty assignment?	[]	[]

RECOMMENDED SCREENING LIST FOR DETERMINING QUALIFICATIONS FOR RECRUITING DUTY

	YES	NO
D. MOTIVATION		
1. Does the individual give positive evidence of being convinced of the advantages of a Navy career?	[]	[]
2. Does the individual want recruiting duty because of a desire to recruit? (Not for some other personal reason, such as geographic locale)	[]	[]
3. Is the individual prepared to work irregular hours, many evenings and Saturdays, and normally exceed an eight hour day, forty hour week?	[]	[]
4. If married, are the members of the family willing to accept the rigors of recruiting duty and living in an area which lacks military base facilities such as hospital, exchange, commissary, housing and recreation facilities?	[]	[]
E. APPEARANCE		
1. Does the individual meet MANMED requirements with regard to height versus weight standards?	[]	[]
2. Does the individual present a neat and well groomed appearance? (Favorable impression)	[]	[]
F. PERSONAL		
1. Is the individual free from financial difficulty? (Based on service record review and interview of the individual)	[]	[]
2. Review the individual's total financial picture to determine potential to live in a high cost of living area; e.g., excessive alimony, child support, or major debt?	[]	[]
G. MEDICAL AND DENTAL		
1. Based on a review of the individual's health record does the individual <u>not</u> require extensive or prolonged medical treatment?	[]	[]
2. Is the individual free from requirement of taking prescribed drugs related to stress related illness (blood pressure, heart problems, ulcers, etc)?	[]	[]
3. If married, are all members of the individual's family free from any health problems, requiring special medical attention (recruiters are not normally assigned close to military medical facilities)?	[]	[]

APPENDIX B

RECOMMENDED SCREENING LIST FOR DETERMINING QUALIFICATIONS FOR RECRUITING DUTY

	YES	NO
4. Has the member undergone a TYPE II Dental examination by a dental officer in the past six months, and has an entry been made on the Dental Standard Form 63 to the effect that the member does not require dental treatment or dental prosthetic restorations?	[]	[]
5. Can the individual emotionally cope with the pressure of achieving established goals in a competitive environment?	[]	[]
H. RATE		
Is the individual a petty officer second class (or selected for second class) or above? (Third class or above for female and minority petty officers)	[]	[]
I. DRIVER'S LICENSE		
Does the individual hold a valid state motor vehicle operator's license?	[]	[]

COMMAND REQUIREMENTS TO BE MET PRIOR TO TRANSFERRING PROSPECTIVE RECRUITERS

1. Commanding officer signature of Page 13 entry on screen and qualification for recruiting duty. (11.041)
2. Obligated service to complete 36 months active duty from month of transfer. If individual will not obligate, so advise CHNAVPERS (for Pers-5021) by message. (11.042-11.043)
3. Individuals with 17 years or more active service sign Page 13 entry stating they understand their request to transfer to Fleet Reserve will not be authorized prior to completion of minimum 36 months recruiting tour. Copy to CHNAVPERS. (11.044)
4. Medical officer screen health record and an entry made on SF 600. (11.045)
5. Dental officer conduct Type II dental examination and complete Dental Standard Form 63 stating individual does not require dental treatment nor prosthetic restorations. (11.046)
6. Individual is advised concerning purchase of extra uniforms and accessories. (11.047)
7. Individual's service record is verified in accordance with BUPERSMAN 5030120. (11.048)
8. Individual's ULIDUSTA received from the Navy Recruiting District. (11.049)
9. Individual's STO complies with CHNAVPERS orders as supplemented by Navy recruiting district's ultimate duty station information. (11.0410)
10. If the individual becomes disqualified for recruiting duty prior to transfer, notify CHNAVPERS and COMNAVCRUITCOM by message immediately. (11.0411)

APPENDIX B

GLOSSARY

Canvasser Recruiters - A canvasser in NAVCRUITCOM is an enlisted man directly involved in searching out and acquiring new enlistees and reenlistees for the Navy.

Fault Transfer - Early transfer of a canvasser recruiter from recruiting duty, i.e., prior to the completion of the normal thirty-six month recruiting tour, due to reasons within the control of the individual recruiter concerned. Such reasons may be misconduct, lack of motivation, unreliability, etc.

NAVCRUITCOM Honor Roll - Monthly listing of all canvassers recruiters within NAVCRUITCOM who enlisted five or more new recruits in the month for which the Honor Roll is published.

Navy Recruiting Command Alpha List - Monthly alphabetical computer listing of all personnel assigned to the Navy Recruiting Command.

No Fault Transfer - Early transfer of a canvasser recruiter from recruiting duty, i.e., prior to the completion of the normal thirty-six month recruiting tour, due to reasons not considered within the control of the individual recruiter concerned. Such reasons may be personal problems, medical problems, lack of salesmanship ability, etc.

Temacs - Temporary canvasser recruiters hired by Navy Recruiting Districts for specific contracted periods of time under special Naval Reserve contracts.

CODES FOR RATES

1	AB	33	FT
2	AC	34	GM
3	AD	35	HM
4	AE	36	HT
5	AF	37	IC
6	AG	38	IM
7	AK	39	JO
8	AM	40	LI
9	AO	41	LN
10	AQ	42	ML
11	AS	43	MM
12	AT	44	MN
13	AV	45	MR
14	AX	46	MS
15	AZ	47	NC
16	BM	48	OS
17	BT	49	OM
18	BU	50	PC
19	CE	51	PH
20	CM	52	PM
21	CT	53	PN
22	DK	54	PR
23	DM	55	QM
24	DP	56	RM
25	DS	57	SH
26	DT	58	SK
27	EA	59	SM
28	EM	60	ST
29	EN	61	SW
30	EO	62	TD
31	ET	63	TM
32	EW	64	UT
		65	YN

FILE ALL CREATION DATE = 05/11/79)

VI HUBB

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	0.	52	27.9	27.9	27.9
	1.	175	13.9	13.9	41.8
	2.	152	12.0	12.1	53.8
	3.	140	11.1	11.1	64.9
	4.	101	8.0	8.0	73.0
	5.	86	6.8	6.8	79.8
	6.	73	5.8	5.8	85.6
	7.	59	4.7	4.7	90.2
	8.	37	2.9	2.9	93.2
	9.	25	2.0	2.0	95.2
	10.	13	1.0	1.0	96.2
	11.	16	1.3	1.3	97.5
	12.	17	1.3	1.3	98.8
	13.	5	0.4	0.4	99.2
	14.	4	0.3	0.3	99.5
	15.	4	0.3	0.3	99.8
	16.	2	0.2	0.2	100.0
	30.	1	0.1	MISSING	100.0
TOTAL		1262	100.0	100.0	

APPENDIX E

FREQUENCY ANALYSIS

05/11/79

FILE ALL (CREATION DATE = 05/11/79)

MEAN	3.036	STD ERR	0.090	MEDIAN	2.181
MODE	0.0	STD DEV	3.190	VARIANCE	10.179
KURTOSIS	1.296	SKEWNESS	1.244	RANGE	16.000
MINIMUM	0.0	MAXIMUM	16.000		
VALID CASES	1261	MISSING CASES	1		

APPENDIX E

FREQUENCY ANALYSIS

FILE ALL (CREATION DATE = 05/11/79)

V2 PAYG

CATEGORY LABEL	CCDE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	4.	2	0.2	0.2	0.2
	5.	239	18.9	19.0	19.1
	6.	532	42.2	42.2	61.3
	7.	335	26.5	26.6	87.9
	8.	116	9.2	9.2	97.1
	9.	36	2.9	2.9	100.0
	0.	1	0.1	MISSING	100.0
	70.	1	0.1	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX E

MEAN	6.343	STD ERR	0.028	MEDIAN	6.231
MODE	6.000	STD DEV	0.985	VARIANCE	0.971
KURTOSIS	0.023	SKEWNESS	0.560	RANGE	5.000
MINIMUM	4.000	MAXIMUM	9.000		
VALID CASES	1260	MISSING CASES	2		

FREQUENCY ANALYSIS
FILE ALL (CREATION DATE = 05/11/79)

V3 EDUC

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	8.	2	0.2	0.3	0.3
	9.	7	0.6	1.2	1.6
	10.	99	7.8	17.2	18.8
	11.	9	0.7	1.6	20.3
	12.	360	28.5	62.6	83.0
	13.	52	4.1	9.0	92.0
	14.	36	2.9	6.3	98.3
	15.	7	0.6	1.2	99.5
	16.	3	0.2	0.5	100.0
	0.	687	54.4	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX E

MEAN	11.863	STD ERR	0.049	MEDIAN	11.974
MODE	12.000	STD DEV	1.178	VARIANCE	1.387
KURTOSIS	1.109	SKENNESS	-0.072	RANGE	8.000
MINIMUM	8.000	MAXIMUM	16.000		
VALID CASES	575	MISSING CASES	687		

FREQUENCY ANALYSIS

05/11/79

FILE ALL (CREATION DATE = 05/11/79)

V4 AC DU

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	2.	1	0.1	0.2	0.2
	3.	5	0.4	0.9	1.0
	4.	77	6.1	13.4	14.4
	5.	37	2.9	6.4	20.9
	6.	86	6.8	15.0	35.8
	7.	47	3.7	8.2	44.0
	8.	33	2.6	5.7	49.7
	9.	11	0.9	1.9	51.7
	10.	21	1.7	3.7	55.3
	11.	8	0.6	1.4	56.7
	12.	17	1.3	3.0	59.7
	13.	29	2.3	5.0	64.7
	14.	24	1.9	4.2	68.9
	15.	22	1.7	3.8	72.7
	16.	39	3.1	6.8	79.5
	17.	39	3.1	6.8	86.3
	18.	26	2.1	4.5	90.8
	19.	20	1.6	3.5	94.3
	20.	16	1.3	2.8	97.0
	21.	7	0.6	1.2	98.3
	22.	5	0.4	0.9	99.1
	23.	1	0.1	0.2	99.3

APPENDIX E

FREQUENCY ANALYSIS

FILE ALL (CREATION DATE = 05/11/79)

05/11/79

27.	1	0.1	0.2	99.5
28.	3	0.2	0.5	100.0
0.	687	54.4	MISSING	100.0
TOTAL	1262	100.0	100.0	

MEAN	10.624	STD ERR	0.235	MEDIAN	8.636
MODE	6.000	STD DEV	5.630	VARIANCE	31.691
KURTOSIS	-0.915	SKEWNESS	0.477	RANGE	26.000
MINIMUM	2.000	MAXIMUM	28.000		
VALID CASES	575	MISSING CASES	687		

APPENDIX E

FILE ALL (CREATION DATE = 05/11/79)

V5 GAMX

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	101.	1	0.1	0.3	0.3
	112.	2	0.2	0.5	0.8
	114.	1	0.1	0.3	1.1
	115.	2	0.2	0.5	1.6
	116.	1	0.1	0.3	1.9
	118.	1	0.1	0.3	2.1
	121.	3	0.2	0.8	2.9
	123.	1	0.1	0.3	3.2
	125.	2	0.2	0.5	3.7
	126.	1	0.1	0.3	4.0
	127.	5	0.4	1.3	5.3
	128.	2	0.2	0.5	5.9
	129.	5	0.4	1.3	7.2
	130.	4	0.3	1.1	8.3
	131.	2	0.2	0.5	8.8
	132.	4	0.3	1.1	9.9
	133.	4	0.3	1.1	11.0
	135.	2	0.2	0.5	11.5
	136.	1	0.1	0.3	11.8
	137.	4	0.3	1.1	12.8
	138.	5	0.4	1.3	14.2
	139.	1	0.1	0.3	14.4

APPENDIX E

FILE ALL (CREATION DATE = 05/11/79)

140.	6	0.5	1.6	16.0
141.	4	0.3	1.1	17.1
142.	2	0.2	0.5	17.6
143.	8	0.6	2.1	19.8
144.	7	0.6	1.9	21.7
145.	5	0.4	1.3	23.0
146.	4	0.3	1.1	24.1
147.	3	0.2	0.8	24.9
148.	5	0.4	1.3	26.2
149.	6	0.5	1.6	27.8
150.	6	0.5	1.6	29.4
151.	7	0.6	1.9	31.3
152.	9	0.7	2.4	33.7
153.	8	0.6	2.1	35.8
154.	3	0.2	0.8	36.6
155.	3	0.2	0.8	37.4
156.	6	0.5	1.6	39.0
157.	7	0.6	1.9	40.9
158.	6	0.5	1.6	42.5
159.	7	0.6	1.9	44.4
160.	3	0.2	0.8	45.2
161.	5	0.4	1.3	46.5
162.	9	0.7	2.4	48.9
163.	12	1.0	3.2	52.1
164.	4	0.3	1.1	53.2

99

APPENDIX E

FREQUENCY ANALYSIS

05/11/79

FILE ALL (CREATION DATE = 05/11/79)

165.	12	1.0	3.2	56.4
166.	7	0.6	1.9	58.3
167.	4	0.3	1.1	59.4
168.	9	0.7	2.4	61.8
169.	7	0.6	1.9	63.6
170.	7	0.6	1.9	65.5
171.	12	1.0	3.2	68.7
172.	7	0.6	1.9	70.6
173.	7	0.6	1.9	72.5
174.	6	0.5	1.6	74.1
175.	1	0.1	0.3	74.3
176.	7	0.6	1.9	76.2
177.	6	0.5	1.6	77.8
178.	4	0.3	1.1	78.9
179.	7	0.6	1.9	80.7
180.	13	1.0	3.5	84.2
181.	6	0.5	1.6	85.8
182.	3	0.2	0.8	86.6
183.	3	0.2	0.8	87.4
184.	3	0.2	0.8	88.2
185.	3	0.2	0.8	89.0
186.	5	0.4	1.3	90.4
187.	4	0.3	1.1	91.4
188.	1	0.1	0.3	91.7
189.	3	0.2	0.8	92.5

APPENDIX E

FILE # 44 (Circulation Date = 05/11/79)

190.	5	0.4	1.3	93.9
191.	2	0.2	0.5	94.4
192.	5	0.4	1.3	95.7
193.	1	0.1	0.3	96.0
194.	2	0.2	0.5	96.5
195.	3	0.7	0.8	97.3
196.	2	0.2	0.5	97.9
197.	1	0.1	0.3	98.1
198.	1	0.1	0.3	98.4
199.	2	0.2	0.5	98.9
200.	1	0.1	0.3	99.2
202.	2	0.2	0.5	99.7
203.	1	0.1	0.3	100.0
0.	638	70.4	MISSING	100.0
TOTAL	1167	100.0	100.0	

4-1	11.037	STU EFF	1.022	162.833
4-2	10.030	STU DEV	15.775	350.936
4-3	10.287	STU VIB	-0.206	102.000
4-4	101.900	MAXIMUM	203.000	

VALID CASES 374 MISSING CASES 888

APPENDIX E

FREQUENCY ANALYSIS

05/11/79

FILE ALL (CREATION DATE = 05/11/79)

V6 SADX

CATEGORY LABEL	CCODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	15.	1	0.1	0.3	0.3
	18.	2	0.2	0.6	0.8
	20.	2	0.2	0.6	1.4
	22.	1	0.1	0.3	1.7
	23.	1	0.1	0.3	1.9
	24.	1	0.1	0.3	2.2
	26.	2	0.2	0.6	2.8
	27.	1	0.1	0.3	3.1
	28.	1	0.1	0.3	3.3
	30.	1	0.1	0.3	3.6
	33.	1	0.1	0.3	3.9
	34.	1	0.1	0.3	4.2
	35.	1	0.1	0.3	4.5
	36.	7	0.6	1.9	6.4
	37.	8	0.6	2.2	8.6
	38.	5	0.4	1.4	10.0
	39.	9	0.7	2.5	12.5
	40.	3	0.2	0.8	13.4
	41.	8	0.6	2.2	15.6
	42.	9	0.7	2.5	18.1
	43.	6	0.5	1.7	19.8
	44.	4	0.3	1.1	20.9

APPENDIX E

FILE ALL (CREATION DATE = 05/11/79)

45.	11	0.9	3.1	24.0
46.	7	0.6	1.9	25.9
47.	13	1.0	3.6	29.5
48.	10	0.8	2.8	32.3
49.	4	0.3	1.1	33.4
50.	12	1.0	3.3	36.8
51.	9	0.7	2.5	39.3
52.	8	0.6	2.2	41.5
53.	11	0.9	3.1	44.6
54.	10	0.8	2.8	47.4
55.	6	0.5	1.7	49.0
56.	9	0.7	2.5	51.5
57.	8	0.6	2.2	53.8
58.	5	0.4	1.4	55.2
59.	8	0.6	2.2	57.4
60.	8	0.6	2.2	59.6
61.	16	1.3	4.5	64.1
62.	7	0.6	1.9	66.0
63.	9	0.7	2.5	68.5
64.	12	1.0	3.3	71.9
65.	5	0.4	1.4	73.3
66.	5	0.4	1.4	74.7
67.	7	0.6	1.9	76.6
68.	9	0.7	2.5	79.1
69.	4	0.3	1.1	80.2

APPENDIX E

FILE ALL (CREATION DATE = 05/11/79)

70.	7	0.6	1.9	82.2
71.	8	0.6	2.2	84.4
72.	5	0.4	1.4	85.8
73.	5	0.4	1.4	87.2
74.	4	0.3	1.1	88.3
75.	5	0.4	1.4	89.7
76.	5	0.4	1.4	91.1
77.	5	0.4	1.4	92.5
78.	2	0.2	0.6	93.0
79.	3	0.2	0.8	93.9
82.	6	0.5	1.7	95.5
83.	3	0.2	0.8	96.4
85.	4	0.3	1.1	97.5
86.	1	0.1	0.3	97.8
87.	2	0.2	0.6	98.3
90.	1	0.1	0.3	98.6
93.	2	0.2	0.6	99.2
94.	1	0.1	0.3	99.4
96.	2	0.2	0.6	100.0
0.	903	71.6	MISSING	100.0
TOTAL	1262	100.0	100.0	

MEAN
MODE
KURTOSIS
MINIMUM

STD ERR
STD DEV
SKEWNESS
MAXIMUM

56.412
61.000
-0.032
13.000

0.786
14.884
0.061
96.000

55.889
221.538
83.000

VALID CASES 359
MISSING CASES 903

APPENDIX E

FREQUENCY ANALYSIS

FILE ALL (CREATION DATE = 05/11/79)

V7 RATE

CATEGORY LABEL	CCUE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	1.	18	1.4	1.4	1.4
	2.	3	0.2	0.2	1.7
	3.	35	2.8	2.8	4.4
	4.	12	1.0	1.0	5.4
	6.	3	0.2	0.2	5.6
	7.	10	0.8	0.8	6.4
	8.	38	3.0	3.0	9.5
	9.	9	0.7	0.7	10.2
	10.	14	1.1	1.1	11.3
	11.	3	0.2	0.2	11.5
	12.	28	2.2	2.2	13.7
	13.	1	0.1	0.1	13.8
	14.	2	0.2	0.2	14.0
	15.	19	1.5	1.5	15.5
	16.	76	6.0	6.0	21.5
	17.	63	5.0	5.0	26.5
	18.	9	0.7	0.7	27.2
	19.	3	0.2	0.2	27.5
	20.	9	0.7	0.7	28.2
	21.	8	0.6	0.6	28.8
	22.	4	0.3	0.3	29.2
	23.	3	0.2	0.2	29.4

APPENDIX E

FILE ALL (CREATION DATE = 05/11/79)

24.	11	0.9	0.9	30.3
25.	4	0.3	0.3	30.6
27.	1	0.1	0.1	30.7
28.	68	5.4	5.4	36.1
29.	59	4.7	4.7	40.7
30.	8	0.6	0.6	41.4
31.	45	3.6	3.6	45.0
32.	1	0.1	0.1	45.0
33.	18	1.4	1.4	46.5
34.	15	1.2	1.2	47.7
35.	11	0.9	0.9	48.5
36.	24	1.9	1.9	50.4
37.	26	2.1	2.1	52.5
38.	1	0.1	0.1	52.6
39.	1	0.1	0.1	52.7
40.	1	0.1	0.1	52.7
41.	1	0.1	0.1	52.8
42.	1	0.1	0.1	52.9
43.	120	9.5	9.5	62.4
44.	1	0.1	0.1	62.5
45.	7	0.6	0.6	63.1
46.	42	3.3	3.3	66.4
47.	86	6.8	6.8	73.2
48.	29	2.3	2.3	75.5
49.	4	0.3	0.3	75.9

FREQUENCY ANALYSIS

FILE ALL (CREATION DATE = 05/11/79)

05/11/79

50.	3	0.2	0.2	76.1
51.	9	0.7	0.7	76.8
52.	3	0.2	0.2	77.0
53.	9	0.7	0.7	77.8
54.	1	0.1	0.1	77.8
55.	31	2.5	2.5	80.3
56.	111	8.8	8.8	89.1
57.	25	2.0	2.0	91.1
58.	9	0.7	0.7	91.8
59.	22	1.7	1.7	93.6
60.	26	2.1	2.1	95.6
61.	4	0.3	0.3	95.9
62.	2	0.2	0.2	96.1
63.	36	2.9	2.9	99.0
64.	2	0.2	0.2	99.1
65.	11	0.9	0.9	100.0
0.	2	0.2	MISSING	100.0
80.	1	0.1	MISSING	100.0
TOTAL	1262	100.0	100.0	

MEAN	35.160	STD ERR	0.505	MEDIAN	36.271
MODE	43.000	STD DEV	17.923	VARIANCE	321.227
KURTOSIS	-1.154	SKWENESS	-0.206	RANGE	64.000
MINIMUM	1.000	MAXIMUM	65.000		

VALID CASES	1259	MISSING CASES	3
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APPENDIX E

V1 HONR

CATEGORY LABEL	CCDE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	0.	352	27.9	27.9	27.9
	1.	175	13.9	13.9	41.8
	2.	152	12.0	12.1	53.8
	3.	140	11.1	11.1	64.9
	4.	101	8.0	8.0	73.0
	5.	86	6.8	6.8	79.8
	6.	73	5.8	5.8	85.6
	7.	59	4.7	4.7	90.2
	8.	37	2.9	2.9	93.2
	9.	25	2.0	2.0	95.2
	10.	13	1.0	1.0	96.2
	11.	16	1.3	1.3	97.5
	12.	17	1.3	1.3	98.8
	13.	5	0.4	0.4	99.2
	14.	4	0.3	0.3	99.5
	15.	4	0.3	0.3	99.8
	16.	2	0.2	0.2	100.0
	30.	1	0.1	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX E

MEAN	3.036	STD ERR	0.090	MEDIAN	2.181
MODE	0.0	STD DEV	3.190	VARIANCE	10.179
KURTOSIS	1.296	SKFVNESS	1.244	RANGE	16.000
MINIMUM	0.0	MAXIMUM	16.000		
VALID CASES	1261	MISSING CASES	1		

FREQUENCY ANALYSIS AGGREGATED DATA

FILE ALL (CREATION DATE = 05/22/79)

V2 PAYG

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
E5= 1.		239	18.9	19.0	19.0
E6/7= 2.		867	68.7	68.8	87.8
E8/9= 3.		152	12.0	12.1	99.8
E4= 4.		2	0.2	0.2	100.0
0.		1	0.1	MISSING	100.0
70.		1	0.1	MISSING	100.0
TOTAL		1262	100.0	100.0	

APPENDIX

114

MEAN	1.934	STD ERR	0.016	MEDIAN	1.951
MODE	2.000	STD DEV	0.559	VARIANCE	0.313
KURTOSIS	0.380	SKEWNESS	0.032	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	1260	MISSING CASES	2		

FREQUENCY ANALYSIS AGGREGATED DATA

05/22/79

FILE ALL (CREATION DATE = 05/22/79)

V3 EDUC

CATEGORY LABEL	CCDE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
UNDER TWELVE YEARS==1.		32	2.5	5.6	5.6
GED ==2.		85	6.7	14.8	20.3
TWELVE YEARS==3.		360	28.5	62.6	83.0
OVER TWELVE YEARS==4.		98	7.8	17.0	100.0
	0.	687	54.4	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX F

MEAN	2.911	STD FRR	0.030	MEDIAN	2.974
MODE	3.000	STD DEV	0.731	VARIANCE	0.534
KURTOSIS	0.834	SKENNESS	-0.722	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	575	MISSING CASES	687		

V4 ACDU

CATEGORY LABEL	CCDE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
TWO TO FIVE =1.		120	9.5	20.9	20.9
SIX TO FOURTEEN =2.		276	21.9	48.0	68.9
FIFTEEN TO TWENTY =3.		162	12.8	28.2	97.0
OVER TWENTY-ONE =4.		17	1.3	3.0	100.0
	0.	687	54.4	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX E

116

MEAN	2.132	STD ERR	0.032	MEDIAN	2.107
MODE	2.000	STD DEV	0.770	VARIANCE	0.592
KURTOSIS	-0.526	SKENNESS	0.161	RANGE	3.000
MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	575	MISSING CASES	687		

FREQUENCY ANALYSIS AGGREGATED DATA

FILE ALL (CREATION DATE = 05/22/79)

V6 SABX

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
13 TO 34=1.		15	1.2	4.2	4.2
35 TO 64=2.		243	19.3	67.7	71.9
65 TO 80=3.		79	6.3	22.0	93.9
81 TO 96=4.		22	1.7	6.1	100.0
	0.	903	71.6	MISSING	100.0
	TOTAL	1262	100.0	100.0	

APPENDIX

11 MEAN	2.301	STD ERR	0.034	MEDIAN	2.177
11 MODE	2.000	STD DEV	0.646	VARIANCE	0.418
11 KURTOSIS	1.001	SKEWNESS	0.992	RANGE	3.000
11 MINIMUM	1.000	MAXIMUM	4.000		
VALID CASES	359	MISSING CASES	903		

FREQUENCY ANALYSIS AGGREGATED DATA

FILE ALL (OPERATION DATE = 05/22/79)

VI	RATE								
CATEGORY LABEL	(CODE)	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
AVIATION = 1.		207	16.4	16.4	16.4				
ADMIN AND SUPPORT= 2.		390	30.9	31.0	47.4				
DECK AND ENGINEERING = 3.		626	49.6	49.7	97.1				
CIVIL ENGINEER= 4.		36	2.9	2.9	100.0				
0.		2	0.2	MISSING	100.0				
80.		1	0.1	MISSING	100.0				
TOTAL		1262	100.0	100.0					

APPENDIX E

118

MEAN	4.350	STD DEV	0.022	MEDIAN	2.552
MODE	1.000	STD BLV	0.790	VARIANCE	0.624
RPT. FREQS	-0.753	MISSING CASES	-0.463	RANGE	3.000
MINIMUM	1.000	MISSING CASES	4.000		
VALID CASES	1759				

REGRESSION

FILE ALL (CREATION DATE = 05/11/79)

CORRELATION COEFFICIENTS

A VALUE OF 99.00000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

	V1	V2	V3	V4	V5	V6	V7
V1	1.00000						
V2	0.08381	0.08381		0.00566	-0.10085	0.11031	-0.10170
V3	0.08769	1.00000	0.05959	0.75875	0.01201	0.25296	0.02131
V4	0.00566	-0.05959	-0.00000	-0.14724	0.28289	0.09375	0.02857
V5	-0.10085	0.01201	0.28289	1.00000	-0.12296	0.29332	0.07279
V6	0.11031	0.25296	0.09375	0.29382	1.00000	0.05984	0.06072
V7	-0.10170	0.02131	0.02857	0.07279	0.06072	0.03458	1.00000

APPENDIX F

(CREATION DATE = 05/11/79)

FILE ALL

VARIABLE LIST
REGRESSION LIST

***** MULTIPLE REGRESSION *****

HONR

V1

DEPENDENT VARIABLE..

SUMMARY TABLE

VARIABLE

MULTIPLE R

RSQ CHANGE

SIMPLE R

B

HF

SARX
GAXX
EDJC
RATE
PAYG
ACDU0.11031
0.15413
0.19063
0.21549
0.22631
0.250750.01217
0.02376
0.03634
0.04944
0.05122
0.062670.01217
0.01159
0.01258
0.01010
0.00478
0.011660.11031
-0.10085
0.08769
-0.10170
0.08381
0.005600.2378099D-01
-0.2438567D-01
0.2505560
-0.1654100D-01
0.6651956
-0.9969863D-01
-0.31820550.1
-0.1
0.1
-0.0
0.1
-0.1

(CONSTANT)

APPENDIX F

FILE ALLSUC (CREATION DATE = 05/10/79)

CORRELATION COEFFICIENTS

A VALUE OF 99.00000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

V1	V2	V3	V4	V5	V6	V7
1.00000	0.17237	0.22271	0.08325	-0.08177	-0.02658	-0.01950
0.17237	1.00000	-0.07848	0.70016	0.09209	0.08228	0.04720
0.22271	-0.07848	1.00000	-0.11870	0.21188	0.15547	-0.04735
0.08325	0.70016	-0.11870	1.00000	-0.06734	0.19169	0.10102
-0.08177	0.09209	0.21188	-0.06734	1.00000	0.16860	0.02971
-0.02658	0.08228	0.15547	0.19169	0.16860	1.00000	0.04867
-0.01950	0.04720	-0.04735	0.10102	0.02971	0.04867	1.00000

APPENDIX F

DEPENDENT VARIABLE.. VI HONR

SUMMARY TABLE

VARIABLE	EDUC	PAYG	GAMA	SAHA	ACDU	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V3	0.22271	0.04960	0.04960	0.17237	0.22271	0.6069948	0.27710				0.27710
V2	0.29303	0.08587	0.04626	0.17237	0.29303	0.8125143	0.25982				0.25982
V5	0.33111	0.10963	0.02377	-0.08177	-0.23346510-01	-0.23346510-01	-0.16028				-0.16028
V6	0.33666	0.11334	0.00371	-0.02658	-0.10826120-01	-0.10826120-01	-0.05123				-0.05123
V7 (CONSTANT)	0.33972	0.11541	0.00207	0.08325	-0.34108130-01	-0.34108130-01	-0.06674				-0.06674

REGRESSION

FILE ALLNRD (CREATION DATE = 05/11/79)

05/11/79

CORRELATION COEFFICIENTS

A VALUE OF 99.00000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

V1	V2	V3	V4	V5	V6	V7
1.000000	-0.15887	-0.02103	-0.19931	-0.16597	0.08911	-0.32632
-0.15887	1.00000	0.06788	0.79012	0.07244	0.29972	0.11505
-0.02103	0.06788	1.00000	-0.09817	0.30202	0.17402	0.08263
-0.19931	0.79012	-0.09817	1.00000	-0.10597	0.24123	0.18105
-0.16597	0.07244	0.30202	-0.10597	1.00000	0.04136	0.06127
0.08911	0.29972	0.17402	0.24123	0.04136	1.00000	-0.12559
-0.32632	0.11505	0.08263	0.18105	0.06127	-0.12559	1.00000

APPENDIX F

FILE # 66-1500 (CREATION DATE = 05/11/79)

MULTIPLE REGRESSION

VARIABLE LIST
REGRESSION LIST

DEPENDENT VARIABLE... VI HINDR

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B
FATE	0.32632	0.10648	0.10648	-0.32632	-0.1816957D-01
GAMX	0.35759	0.12787	0.02139	-0.16597	-0.93394338D-02
ZCNU	0.39224	0.15385	0.02598	-0.19531	-0.3393273D-01
SAMX	0.40603	0.16486	0.01101	-0.08911	0.7360779D-02
FUDC	0.40637	0.16513	0.00028	-0.02103	0.1753116D-01
(CONSTANT)					2.571550

APPENDIX F

REGRESSION AGGREGATED DATA

FILE ALL (CREATION DATE = 05/17/79)

CORRELATION COEFFICIENTS

A VALUE OF 99.0000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

V1	V2	V3	V4	V5	V6	V7
1.00000	0.10119	0.08429	0.00025	-0.11203	0.03873	-0.01893
0.10119	1.00000	-0.04987	0.62854	0.07121	0.22417	0.05224
0.08429	-0.04987	1.00000	-0.16965	0.25141	0.04330	-0.08103
0.00025	0.62854	-0.16965	1.00000	-0.02018	0.21988	0.03659
-0.11203	0.07121	0.25141	-0.02018	1.00000	0.02868	-0.01005
0.03873	0.22417	0.04330	0.21988	0.02868	1.00000	-0.09868
-0.01893	0.05224	-0.08103	0.03659	-0.01005	-0.09868	1.00000

V1
V2
V3
V4
V5
V6
V7

APPENDIX F

APPENDIX F

REGRESSION AGGREGATED DATA

FILE ALLSUC (CREATION DATE = 05/17/79)

CORRELATION COEFFICIENTS

A VALUE OF 99.00000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

V1	V2	V3	V4	V5	V6	V7
1.00000	0.15918	0.23528	0.08861	-0.07675	-0.07933	0.12176
0.15918	1.00000	-0.11051	0.61645	0.10869	0.10019	0.12217
0.23528	-0.11051	1.00000	-0.13243	0.20416	0.10554	-0.18073
0.08861	0.61645	-0.13243	1.00000	0.09121	0.13598	-0.10982
-0.07675	0.10869	0.20416	0.09121	1.00000	0.11811	-0.18811
-0.07933	0.10019	0.10554	0.13598	0.11811	1.00000	-0.14072
0.12176	0.12217	-0.18073	0.10982	-0.18811	-0.14072	1.00000

APPENDIX F

REGRESSION

FILE ALLSUC (CREATION DATE = 05/17/79)

VARIABLE LIST 1
REGRESSION LIST 1

H0NR

V1

DEPENDENT VARIABLE..

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V3	0.23528	0.05536	0.05536	0.23528	1.120274	0.31811
V2	0.30012	0.09007	0.03472	0.15918	0.9675974	0.18728
V5	0.33733	0.11379	0.02372	-0.07675	-0.4707976	-0.13096
V7	0.35922	0.12904	0.01525	0.12176	0.3876909	0.11391
V6	0.37268	0.13889	0.00985	-0.07933	-0.4513770	-0.10409
V4	0.37335	0.13939	0.00051	0.08861	0.1016547	0.02887
(CONSTANT)					1.940352	

APPENDIX F

REGRESSION AGGREGATED DATA

FILE ALLNRD (CREATION DATE = 05/17/79)

CORRELATION COEFFICIENTS

A VALUE OF 99.00000 IS PRINTED
IF A COEFFICIENT CANNOT BE COMPUTED.

	V1	V2	V3	V4	V5	V6	V7
V1	1.00000	-0.21446	-0.06039	-0.20306	-0.18859	0.09351	-0.34422
V2	-0.21446	1.00000	0.15871	0.61477	0.25221	0.33580	0.03310
V3	-0.06039	0.15871	1.00000	-0.15203	0.27829	0.08680	0.22157
V4	-0.20306	0.61477	-0.15203	1.00000	-0.01937	0.28434	-0.06182
V5	-0.18859	0.25221	0.27829	-0.01937	1.00000	0.01229	0.04677
V6	0.09351	0.33580	0.08680	0.28434	0.01229	1.00000	-0.18897
V7	-0.34422	0.03310	0.22157	-0.06182	0.04677	-0.18897	1.00000

APPENDIX F

REGRESSION

FILE ALLNRD (CREATION DATE = 05/17/79)

DEPENDENT VARIABLE.. V1. HONR

VARIABLE LIST 1
REGRESSION LIST 1

05/17/79

PAGE

8

SUMMARY TABLE

VARIABLE	RATE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V7	ACDU	0.34422	0.11849	0.11849	-0.34422	-0.4972429	-0.33164
V4	GAMX	0.41111	0.16901	0.05052	-0.20306	-0.2961284	-0.20748
V5	SADY	0.44737	0.20014	0.03113	-0.18859	-0.2227433	-0.16752
V6	PAYG	0.45843	0.21016	0.01002	0.09351	0.1459780	0.11517
V2	EDUC	0.46112	0.21263	0.00247	-0.21446	-0.1601092	-0.07719
V3 (CONSTANT)		0.46192	0.21337	0.00374	-0.06039	0.5253490-01	0.03042
						2.832593	

APPENDIX F

RATES BY OCCUPATIONAL GROUPS

AVIATION, 1

AB	AQ
AC	AS
AD	AT
AE	AV
AF	AX
AG	AZ
AK	PH
AM	PR
AO	TD

ADMIN AND SUPPORT, 2

CT	LN
DK	MS
DP	NC
DS	OM
DT	PC
ET	PN
HM	RM
IM	SH
JO	SK
LI	YN

DECK AND ENGINEERING, 3

BM	ML
BT	MM
EM	MN
EN	MR
EW	OS
FT	PM
GM	QM
HT	SM
IC	ST
	TM

CIVIL ENGINEER, 4

BU
CE
CM
EA
EO
SW
UT

REPRESENTATIVE RECRUITER TURNOVER COSTS

Identifying specific costs which are associated with inefficient selection procedures for Navy recruiters is imprecise at best because it is impossible to estimate how much more effective the Navy Recruiting Command could be if "more capable" recruiters were put into the system at the outset. There is, however, one category of recruiting personnel which is readily identifiable and for which reasonably specific cost data can be computed. This category, ALLDROP is comprised of those recruiting personnel who are released from their recruiting assignments prior to completion of the normal thirty-six month recruiting tour. Cost data for the 245 recruiters in the sample group who are the identifiable early losses is set forth below.

TABLE X
BASE PAY EXPENSE FOR SUBGROUP ALLDROP

Paygrade	# Recruiters	Av Monthly Base Pay	# Months of Nonproductivity	Base Pay Expense
E-4	0	X \$ 812	X 9@	= 0
E-5	61	X \$ 959	X 9	= \$ 526,491
E-6	99	X \$1158	X 9	= \$1031,778
E-7	63	X \$1376	X 9	= \$ 780,092
E-8	18	X \$1599	X 9	= \$259,038
E-9	<u>4</u>	X \$1873	X 9	= <u>\$ 67,428</u>
Total	245	X --	X 9	=\$2,664,927

TABLE XI
BAQ EXPENSE FOR SUBGROUP ALLDROP

Paygrade	# Recruiters		Av Monthly BAQ		# Months of Nonproductivity		BAQ Expense
E-4	0	X	\$ 75	X	9@	=	0
E-5	61	X	\$111	X	9	=	\$ 60,939
E-6	99	X	\$135	X	9	=	\$120,285
E-7	63	X	\$152	X	9	=	\$ 86,184
E-8	18	X	\$181	X	9	=	\$ 29,322
E-9	<u>4</u>	X	\$208	X	9	=	<u>\$ 7,488</u>
Total	245	X	--	X	9	=	\$304,218

Average Cost figures used in the foregoing two tables and the following computations were derived from NAVCOMPTNOTE 7041²⁶ and represent average monthly cost figures for base, pay, bachelor allowance for quarters (BAQ), and Permanent Change of Station (PCS) expenses for the 245 ALLDROP subgroup personnel.

@ The multiplier, nine, in the column, # Months Nonproductivity, was computed by considering the following:

The average recruiter is dropped by the Navy Recruiting District after from six to twelve months in the field.²⁷ Choice of the lower figure six, to represent nonproductive field time was made so as not to exaggerate costs related to recruiter turnover. Three months representing travel, leave and training time were added to the six months field time to bring the total months wasted per turnover to nine.

APPENDIX H

The PCS expense for subgroup ALLDROP is compiled by multiplying the 245 recruiters in the subgroup by the average monthly enlisted PCS cost of \$26 and then times an average two months spent in PCS status by each recruiter in the group. (This estimated two months in PCS status takes into account thirty days delay in reporting-leave-for the incoming recruiter, an average of seven days travel time both coming and going, and fourteen days leave upon departing from a recruiting assignment early.)

Computations for the PCS expense are as follows:

$$245 \times \$26 \times 2 = \$12,740$$

The total combined cost for the 245 recruiters in subgroup ALLDROP would be as follows:

Base Pay Expense = \$2,664,927

BAQ Expense = \$ 304,218

PCS Expense = \$ 12,740

Total \$2,981,885

In addition to the base pay, BAQ and PCS costs for each turnover, there are also formal and informal training costs allocable to each of these unsuccessful recruiters which represent wasted resource expenditures for the Recruiting Command. The precise dollar amount of training costs for each turnover will vary from Navy Recruiting District to Navy Recruiting District depending on the type of on-the-job training program that district employs. The precise dollar amount per turnover will also vary for the Navy Recruiting Command formal training program depending on the command-wide

APPENDIX H

turnover rate and the flow of recruiter trainees through the formal recruiter training program.

This Appendix has dealt with the most easily identifiable and quantifiable costs associated with recruiter turnover in order to give some indication of the amounts involved but it must be stressed that, by far the most important costs are those that are nonquantifiable, i.e., the loss in human resources capabilities which result from poor recruiter personnel policies.

Suffering Seniors

The Navy Recruiting Command needs a little exposure, and with your help this exposure may save the careers of many senior petty officers who are considering recruiting duty for a future assignment.

Unlike the traditional "senior man take charge" procedure, which is so commonly taken for granted in other Naval commands, the Recruiting Command leaves the boss positions up to the commanding officers of the various districts. This allows them to ignore all seniority and assign whomever they desire into the senior slots. Therefore we have senior chief petty officers junior to first class petty officers, master chiefs working for E-7s and below, and etc.

The reaction of many senior petty officers to this degradation management procedure has resulted in low evaluations for the senior man and outright contempt for the commands which condone such actions.

I have met many senior petty officers who feel exactly as I do, in that if we had known how management was set up in the Recruiting Command, we would never have volunteered to join such a command. Many of us were previously assigned during the days of Vice Adm. Tidd, and what a shocking difference we find today.

It is both embarrassing and disgraceful to introduce a person to the civilian populace and members of the other recruiting forces as your "boss," when he can be from one to three pay grades subordinate to you. About all you can say is, "The Navy has sure changed." Is it really any wonder that the Navy Recruiting Command has been doing so badly?

I have checked with the JAG office in Washington, and I was informed that there had been some rumbles heard but no test case as yet. The officer community seems to be protected by Navy Regulations sufficiently, but not so the enlisted.

Command excuses for placing juniors over seniors range from, "Junior has more experience, attitude, loyalty," to "I'm the CO and I'll run things the way I want to."

Can you imagine leaving one command as the MPOC and entering another and being placed under the supervision of a PO1 without any firm timetables or any

guarantee that this would not be your situation for a complete tour? If you can, and you could live with it, then perhaps you can survive in the Navy Recruiting Command. If you are a proud senior petty officer and expect to provide positive leadership at your next command, perhaps you had best find another job. This duty could end your career, as it is doing to others at this very instant.

I sincerely hope that my letter may enlighten those of you who have not yet been drawn into the career-ending web of this command uninformed. Once you are in the command you have but a couple of ways to leave it, neither of which is enhancing to your career.

Hopefully, the enlisted seniority problem will be a priority item soon. Until then, however, let it be known that many of the senior petty officers presently assigned to the Navy Recruiting Command are in a degrading and demoralizing position, and as they are being sunk, so the Navy Recruiting Command itself continues to sink.

NAME WITHHELD

We asked the Navy Recruiting Command to comment on your letter. Here is their response:

"The philosophy and practice that a recruiting supervisor must first learn to successfully recruit is based on experience gained over the last five years of recruiting and under the All-Volunteer Force Concept.

"Recruiting is in some ways a unique challenge to most Navy men. Although an individual may advance to senior levels in a particular rating in fleet assignments, it does not ensure that he is equally expert in the recruiting process. It is neither fair to the individual nor to the Navy to place the individual initially in a position of supervisory responsibility for which he lacks the experience and proven expertise.

"Therefore, new recruiters of any rate are first assigned to stations as recruiters to gain the necessary expertise. These same recruiters are afforded every opportunity to advance to responsible positions, such as Chief Recruiter, Zone Supervisor or Recruiter-in-Charge of a station.

"How far one advances in this command is determined in part by mastery of recruiting techniques and excellence in performance, and his demonstrated management abilities." — Editor.

All unsigned letters are discarded but names will be withheld upon request. Editors reserve the right to condense all letters published.

LIST OF REFERENCES

1. Arima, James K., A Systems Analysis of Navy Recruiting, Navy Personnel Research and Development Center Special Report 76-9, San Diego, Calif. 1976.
2. Arima, James K., Determinants and A Measure of Navy Recruiter Effectiveness, Navy Personnel Research and Development Center Special Report 78-6, San Diego, Calif., 1978.
3. Bennett, James T. and Haber, Sheldon, E., Selection, Deployment and Evaluation of Marine Recruiters, George Washington University, 1974.
4. Best, James B. and Wylie, Walter J., U.S. Navy Recruiter Attributes and Attitudes: A Survey Analysis, (Published Master's Thesis), Naval Postgraduate School, Monterey, Calif., 1974.
5. Borman, W.C., Hough, L.M. and Dunnette, M.D., Development of Behaviorally Based Rating Scales for Evaluating the Performance of U.S. Navy Recruiters, (NPRDC Tech Report 76-31), Navy Personnel Research and Development Center, San Diego, Calif., 1976.
6. Corsey, J.W., Jr., An Analysis of Enlisted Recruit Processing Flows, (originally prepared for Master's thesis), Naval Postgraduate School, Monterey, Calif., 1975.
7. Donelan, John O., Investigation of Goaling Models for Navy Recruiting, (published Master's Thesis), Naval Postgraduate School, Monterey, Calif., 1977.
8. Eckhardt, Bruce K., "Quality Comparison of Draft-Motivated Navy Enlistees with All-Volunteer Force Enlistees", (published Master's Thesis), Naval Postgraduate School, Monterey, Calif., 1973.
9. Flamholtz, Eric, Human Resource Accounting, Dickenson Pub. Co., 1974, Belmont, Calif.
10. Gates, Thomas, "Report of the President's Commission on An All Volunteer Force, Washington, D.C., 1970.
11. Forst, Brian E., and O'Neill, David M., The Determinants of Personnel Turnover Costs and Accession Requirements: A Steady-State Model, Center for Naval Analyses Research Contribution 170, Arlington, Va., 1971.

12. Glickman, Albert S., Ph.D., "Career Motivation in the Navy," NPRDC Symposium Proceedings, Occupational Research and the Navy Prospectus 1980, San Diego, Calif, 1974.
13. Hoel, Paul G. and Jessen, Raymond J., Basic Statistics for Business and Economics (2nd ed), John Wiley and Sons, Santa Barbara, Calif., 1977.
14. Jehn, C. and Carroll, H.E., Navy Recruiting in an All-Volunteer Environment, Center for Naval Analyses Research Contribution 235, Arlington, Va., 1974.
15. Krug, Samuel E., "Psychological and Demographic Predictors of Success As A Navy Recruiter," Final Report for the Navy Recruiting Command by the Institute for Personality and Ability Testing, Arlington, Va., 1972.
16. Lockman, R.F., Productivity for Navy Recruiting Districts, Center for Naval Analyses Paper (CNA) 1526-75, Arlington, Va., 1972.
17. Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, D., and Bent, D.H., Statistical Package for the Social Sciences, (2nd ed), McGraw-Hill, New York, 1975.
18. Ostle, Bernard, Statistics in Research, (Revised 2nd Ed), The Iowa State University Press, Ames, Iowa, 1963.
19. Redford, S.R., "Surplus of Jobs Predicted for 80's," Family Weekly, New York, N.Y., 1979.
20. Stephen, R.A. and Horowitz, S.A., Recruiting Quotas and Distribution of Canvassers, Center for Naval Analyses Paper (INS) 526-72, Arlington, Va., 1972.
21. Sullivan, R.J., Developing A Measure of Marine Corp Recruiting Effectiveness (published Master's Thesis), Naval Postgraduate School, Monterey, Ca., 1976.
22. Wilkinson, J.M., Development of A Device for Selecting Coast Guard Recruiters, (published Master's Thesis), Naval Postgraduate School, Monterey Calif. 1964.
23. NAVCOMPTNOTE 7041, NAFC-813, NCF 3-79, Department of the Navy, Office of the Comptroller, Washington, D.C., 1978.

NOTES

1. Bienstock, Herbert, "Surplus of Jobs Predicted for 80's," Family Weekly, Family Weekly, Inc., New York, N.Y., p. 16, May 13, 1979 (Mr. Bienstock is the Regional Commissioner for New York of the U.S. Bureau of Labor Statistics)
2. Ibid.
3. Gates, Thomas, Chairman, President's Commission on An All Volunteer Force, "The Report of the President's Commission on An All Volunteer Force," p. vii, February 1970
4. Eckhardt, Bruce, Quality Comparison of Draft-Motivated Navy Enlistees with All-Volunteer Force Enlistees, (published Master's Thesis,) Naval Postgraduate School, Monterey, Calif, p. 2, September 1973.
5. Arima, James K., A Systems Analysis of Navy Recruiting, Navy Personnel Research and Development Center Special Report 76-9, San Diego, Calif., p. 1, 1976
6. Ibid p. 12
7. Ibid p. 1
8. Glickman, Albert S., Ph.D., "Career Motivation in the Navy," NPRDC Symposium Proceedings, Occupational Research and the Navy Prospectus 1980, TR 74-14, p. 165, 1974
9. Arima 1976 p. 15
10. Arima, James K., Determinants and a Measure of Navy Recruiter Effectiveness, Navy Personnel Research and Development Center Special Report 78-6, San Diego, Calif., p. 3, 1978.
11. Arima 1976 p. 82
12. Krug, Samuel E., "Psychological and Demographic Predictors of Success As A Naval Recruiter," Institute for Personality and Ability Testing, final report for the Navy Recruiting Command, 1972.
13. Ibid p. 2-2
14. Ibid p. 1-2

15. Arima 1978 p. 83
16. Bennett, James T., and Haber, Sheldon E., Selection, Deployment, and Evaluation of Marine Recruiters, George Washington University, June 1973.
17. Best, James B. and Wylie, Walter J., U.S. Recruiter Attributes and Attitudes: A Survey Analysis, (published Master's Thesis), Naval Postgraduate School, Monterey, Calif., p. 50, June 1974.
18. Borman, W.C., Hough, L.M., and Dunnette, M.D., Development of Behaviorally Based Rating Scales for Evaluating the Performance of U.S. Navy Recruiters, (NPRDC Tech Report 76-31), San Diego, Calif, 1976
19. Arima 1978
20. Flamholtz, Eric, Human Resource Accounting, Dickenson Publishing Co., 1974, Belmont, Calif.
21. Ibid p. 41
22. Ibid p. 37
23. Forst, Brian E. and O'Neill, David M., The Determinants of Personnel Turnover Costs and Accession Requirements: A Steady-State Model, Center for Naval Analyses Research Contribution 170, Arlington, Va., p.1, February 1971.
24. Arima 1978 p. 111
25. Arima 1976 p. 127
26. Arima 1976 p. 99

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